

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995  
From: "J. Mark Bolton" <coastalemc@sunbelt.net>  
Subject: (no subject)  
Message-ID: <30DAEA7D.792D@SUNBELT.NET>

Subscribe

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995  
From: mjsilva@ix.netcom.com (michael silva)  
Subject: 30 cent 6AG7s (with a catch...)  
Message-ID: <199512221926.LAA07662@ix11.ix.netcom.com>

Hi all,

I was thumbing thru a copy of "Glass Audio" looking at the ads, and I saw a place called New Sensor selling NOS and Russian tubes. They had some good prices, but what really caught my eye was NOS Jan 6AG7Ys for 30 cents each. I called and it's legit. The catch is a \$60 minimum order. I'm passing this info along should anybody want to set up a group buy or somesuch. There may be some other good buys in the ad as well -- I'm not that familiar with some of the tubes listed. While I don't need any of these tubes, I thought at this price there might be some interest.

Oh yeah, the number: New Sensor Corp. 800-633-5477

73,  
Mike, KK6GM

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995  
From: MODSTEPH@ACS.EKU.EDU  
Subject: 9 Pin Plug/Socket  
Message-ID: <01HZ34B0JV820011ND@ACS.EKU.EDU>

Thanks to all - got lines on the plug and socket so can get the critter up and running - eventually.

And no longer need any more input on the 9 pins - again, thanks to all...

73, Al N5AIT  
modsteph@acs.eku.edu

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995  
From: jmillier@teleteam.com (Jay H. Miller)  
Subject: 9-Pin Plugs  
Message-ID: <v01510109acff421de7bf@[205.198.110.24]>

> Wrong! Seems that instead of a "normal" octal plug/octal socket  
> set up, Johnson used a NINE pin plug/socket cable...  
>

Al- Collins uses the same 9-pin plug for the 51S-1 power cord. I will dig around and see if I can locate some spares. Will also check out the cables with my Invader 2000 and see if I have what I need.

73

\*\*\*\*\*  
Jay Miller, KK5IM  
jmillier@teleteam.com  
\*\*\*\*\*

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995  
From: stever@cybercomm.net (Stephan Rashkin)  
Subject: another load  
Message-ID: <199512220243.VAA10740@raven.cybercomm.net>

Hi Pete,  
Could you give me a phone number where I can  
contact you?

Steve, WA2NHZ

stever@raven.cybercom.com

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995  
From: Bill Meara <74537.1100@compuserve.com>  
Subject: BA Book  
Message-ID: <951222101440\_74537.1100\_EHH47-1@CompuServe.COM>

Distinguidos Anchorologos (Hey, I'm in the Dominican Republic...)

I liked Joe Carr's book "Old Time Radios - Restoration and Repair". It is oriented toward old broadcast band radios, but there is a lot of info useful for novice-intermediate level ham BA's. Joe has a talent for making the theory very

easy to understand. His discussion of troubleshooting techniques was very helpful as was his rundown on problems common to hollow state circuits. Mine was in paperback, 16.95 from Tab Books, Blue Ridge Summit PA 17294-0850

Merry Christmas to all!

73! Bill N2CQR/HI8  
Santo Domingo, Dominican Republic  
Running: HT-37, 2-B, HW-101, HQ-100 (with SP-600  
and SX-43 awaiting repairs)

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995  
From: Bernie Skoch <75376.12@compuserve.com>  
Subject: Drake Tuner-Upper??  
Message-ID: <951222150746\_75376.12\_CHR55-1@CompuServe.COM>

BOATANCHORS@THEPORCH.COM

I have a Drake T4X that is getting distorted audio reprints. I'd like to get it tweaked up. Can anyone recommend a good Drake person? Should I ship it back to Miamisburg (would Drake even look at it?)?

Thanks for any advice.

bernie skoch  
75376.12@Compuserve.com

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995  
From: Terry Burge <terrybu@netman.ENS.TEK.COM>  
Subject: email address of ARRL  
Message-ID: <9512212200.AA16178@netman.ENS.TEK.COM>

Anyone know the internet address of the ARRL. A friend of mine faxed in a subscription for me but gave the old address instead of the new PO Box. After about a year I think the post office is about ready to stop forwarding the mail.

Terry  
KI7M

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995  
From: stever@cybercomm.net (Stephan Rashkin)  
Subject: Re: email address of ARRL

Message-ID: <199512220220.VAA09860@raven.cybercomm.net>

>Anyone know the internet address of the ARRL. A friend of mine faxed in  
>a subscription for me but gave the old address instead of the new  
>PO Box. After about a year I think the post office is about ready to  
>stop forwarding the mail.

>

>Terry

>KI7M

>

yup, it's

<http://www.arrl.org/>

73's

Steve, WA2NHZ

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995

From: k1zat@bah.com

Subject: Re: email address of ARRL

Message-ID: <Pine.SUN.3.91.951221233305.2458A-100000@booz.bah.com>

Terry --

On Thu, 21 Dec 1995, Terry Burge wrote:

> Anyone know the internet address of the ARRL. A friend of mine faxed in  
> a subscription for me but gave the old address instead of the new

According to my list of email addresses for Newington, K8CH is  
supposedly the supervisor of membership. His email is chutch@arrl.org.  
they also apparently have aliases against their callsigns there, so you  
can also use k8ch@arrl.org.

jd

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995

From: "Carcia, Joe, NJ1Q" <jcarcia@arrl.org>

Subject: RE: email address of ARRL

Message-ID: <30DAA9A6@arrl.org>

Dear Terry:

There are a few ARRL email addresses you can use (depending on what you

need). They are:

For QST delivery:           circulation@arrl.org  
Book orders:           pubsales@arrl.org  
Educational Materials:   ead@arrl.org  
DXCC:           dxcc@arrl.org  
QSL Service:           buro@arrl.org  
Scholarships:           foundation@arrl.org

If you're unsure about which particular department you need, you can send your request to:

hq@arrl.org

The Postmaster will forward your request(s) onto the correct department.

I hope this helps!

73,

Joe, NJ1Q

Joseph P. Carcia III, NJ1Q	"The surest sign
that Intelligent	
ARRL Outgoing QSL Service Mgr.	life exists in the
Universe is	
American Radio Relay League	that NONE of it has
ever visited	
225 Main St.	
the Earth!" - Calvin & Hobbs	
Newington CT 06111-1494	
(w) (860) 594-0200 ext. 0274 -or-	
(w) (860) 594-0274 (Direct Line)	
(fax) (860) 594-0259	
Internet: jcarcia@arrl.org	
TCP/IP: NJ1Q-1@N1LMP-9.AMPR.ORG	
Packet: NJ1Q@W1EDH.CT.USA.NOAM	

|  
QSL Service URL: (under construction) |

"Remember...ALWAYS Listen to American (P.R.I.) and National Public Radio!"

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995  
From: Terry Burge <terrybu@netman.ENS.TEK.COM>  
Subject: email address of ARRL  
Message-ID: <9512221716.AA24631@netman.ENS.TEK.COM>

Thanks to everyone who took the time to write and give me the information I requested.

Terry  
KI7M

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995  
From: jml@spider.lloyd.com (Jim Lockwood)  
Subject: Enough of the 1660 discussions  
Message-ID: <m0tT8VU-000TrTC@spider.lloyd.com>

The 1660 Kc broadcast discussions don't belong here.

There is almost certainly an appropriate usenet news group where they could be continued ad nauseum, however, and they should be moved to that forum.

73,

Jim - km6nk

From boatanchors@theporch.com Fri Dec 22 14:37:43 1995  
From: lbbarley@southwind.net (Bruce Barley)  
Subject: Front Panel HW101 Trade/FS  
Message-ID: <199512222001.0AA03966@onyx.southwind.net>

Hi and a very merry Christmas / happy Chanukah to all

I have the front panel to a Heath HW101 which has faired much better than the rest of the rig. The panel is in great cosmetic condition, and has NOT been modified in any way.

The zero-set button is there, and the dial window is in good shape.

I am offering the panel for trade - I would possibly consider cash, if your junk box is empty. Here is a brief rundown of some of the items I'm looking for...

- FT243 crystals in the 80m / 40m novice or general CW bands
- plug-in coil forms
- air-dux type coil stock suitable for qrp homebrew

- binding posts which will also accept banana plugs  
(I'm looking for ceramic, but plastic is OK)

Dig deep - be generous! Be creative! Let me know what you want to trade for this panel. I don't have a use for it, and I figure that it would be much better to find a new home for this panel somewhere other than the city dump ... recycling and all, don't ya' know?

73

Bruce - KB0PZD

From boatanchors@theporch.com Fri Dec 22 14:37:43 1995  
From: Andy Wallace <wallace@mc.com>  
Subject: Heath Lunchbox on 80 or 40???  
Message-ID: <9512221948.AA02336@klatu>

Here's a silly thought.

Has anyone ever considered taking a (JUNKER) Heath Lunchbox transceiver and modifying it to run on one of the HF hambands? Take out the doubler-tripler-tripler section, use components for 80m....you would then have an 80m superregen and probably a few watts of tx power. If nothing else, it would be fun to run from an overnight hamfest location.

73,

--Andy

wallace@mc.com

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995  
From: Witmerjr@aol.com  
Subject: HQ-180 / SB-100 Info Requested. Any Clegg BA Interest?  
Message-ID: <951222143240\_97228733@emout05.mail.aol.com>

Hello Everyone,

I've been "Signed-On" to this group for a week or so now and It has rapidly become my favorite! A great group with great Info!

I have one real BA - an HQ-180 and, I gather, a "Semi-BA" an SB-100 - which I'm looking for info/help with.

HQ-180

The HQ-180 has major intermittent sensitivity (ie like an On/Off switch) as it's tuned across the various bands - almost like the main tuning variable

capacitor(s) are intermittently shorting or are opening. Any suggestions on what to do to fix this? Otherwise the radio seems in excellent condition with the built in timer and everything - even the matching speaker & manual are in excellent condition.

SB-100

This is also in excellent condition with two exceptions:

1. Several of the rotary switches are extremely "stiff"/hard to turn - one is almost impossible - in fact I don't turn it - thank heavens it doesn't need to be! I've tried WD-40 with little luck. Suggestions?

2. On transmit the audio is distorted - almost clipped - with it sounding worse with the mic gain turned down - better with the mike gain all the way up. All the tubes check OK. My next steps are voltage & resistance checks per the manual. If nothing shows up then frequency checks of the various Xtal oscillators. Any additional suggestions?

Clegg BA Interest

Anyone else interested in Clegg BAs? I have an Interceptor receiver - the "Factory Sample" and a matching All-Bander convertor. I'm also about ready to start work on a Venus (6-Meter SSB) which I hope to have ready for the January VHF contest.

Again - Thanks for the great group and any Information you may be able to help me with.

73,

Bob Witmer  
W3RW

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995  
From: arther.dent@smtp.prostar.com  
Subject: many thanks  
Message-ID: <199512220907.DAA26686@uro.theporch.com>

many thanks to all of you BA's that looked through your junk boxes looking for that 6SB7Y. i finally found one. when i put it in i found i still had no recieve. so i did some checking and found that when i forgot and left the NC-57 on for three days, not only did it take out the tube it also cooked all the paper caps. so after replacing all the paper and electrolitic caps, and the 6SB7Y (used a 6SA7Y), the old girl sounds great.

BTW for a couple oof you who mentioned that their NC-57's had bad rcv. on



the higher bands.....i might suggest getting rid of those paper caps. i now have excellent receive on all bands from 500kc's all the way up to 54mhz. i had almost forgotten how nice the audio was on the old rig.....  
73.....mike.....KB7VNT.....

i transmit therefore i am.....

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995  
From: rsolomon@textron.com (Dick Solomon)  
Subject: Memphis Bell  
Message-ID: <9512221619.AA20135@textron.com>

If you saw the made for TV movie re: The Memphis Bell, it had enough mint BA's to make a sane man drool!!  
Happy holidays de Dick, W1KSZ

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995  
From: n5off@w5ddl.aara.org  
Subject: Memphis Belle  
Message-ID: <257322@w5ddl.aara.org>

I saw MB last night, but didn't see any mint BA's, but plenty of BA's anyway.

Good shots of command rigs and a BC-348 (early). All showed wear as they should after 25 missions I guess.

When "Mother and Country" collided with the German fighter, the MB radio op put out a call to them. He got a few screams on voice, then a 120 line per minute FAX signal, then a K in CW.

HMMM, how did that B-17 send a FAX?

73 de Tom N5OFF Merry Xmas to All

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995  
From: "Rhett T. George" <rtg@ee.duke.edu>  
Subject: Merry Christmas  
Message-ID: <199512212152.QAA59146@ee.duke.edu>

Holiday Greetings, Merry Christmas,  
and a Happy New Year to one and all.

A note of special thanks to Santa BA  
who so generously distributed tuning  
cap grommets from his largess.

73

Rhett - KE4HIH

From boatanchors@theporch.com Fri Dec 22 14:37:43 1995  
From: "Administrator" <Administrator@dtus.com>  
Subject: Message not deliverable  
Message-ID: <9511228196.AA819671007@cc2.dttus.com>

The following is an attached File item from cc:Mail. It contains  
information that had to be encoded to ensure successful transmission  
through various mail systems. To decode the file use the UUDECODE  
program.

----- Cut Here -----  
begin 644 TextItem.txt  
M("`@("`@(\$)/051!3D-(3U)3(\$1I9V5S="`S.#0-"@T\*5&]P:6-S(&-0=F5R  
M960@:6X@=&AI<R!I<W-U92!I;F-L=61E.@T\*#0H@(#\$I(\$UE<G)Y(\$-H<FES  
M=&UA<PT\*(&)Y(")2:&5T="!4+B!'96]R9V4B(#QR=&='964N9'5K92YE9'4^  
M#0H@(#(I(%)E.B!5<'!E<B!C87-E+%9I:VEN9R!);G9A9&5R<RQ(4D\@8V]I  
M;' ,L(%-+3@T\*(&)Y(\$IA8W%U96QI;F4@2&5R;6%N(#QJ:&5R;6%N0'-I97)R  
M82YN970^#0H@(#,I(%)E.B!213Y3;W)E;G-O;B!.;V)A=')O;@T\*(&)Y(!E  
M=&5R(\$9E<G)A;F0@/'!F97)R86YD0'-C;V]T+FYE=&ES+F-O;3X-"B`@-"D@  
M.2U0:6X@4&QU9W,-"B!B>2!J;6EL;&5R0'1E;&5T96%M+F-O;2`H2F%Y(\$@N  
M(\$UI;&QE<BD-"B`@-2D@3F]B871R;VYS#0H@8GD@ (D)A<G)Y(\$PN(\$]R;FET  
M>B(@/'4X-38P,3!`96%S=&UA;BYC;VT^#0H@(#8I(%)S.3!!(&UA;G5A;"!N  
M965D960-"B!B>2`B0W)A:6<@06YD97)S;VX@+2!%>'0N(#\$S-C0B(#Q#06YD  
M97)S;T!S;71P+G-T<"YT96,N;6XN=7,^#0H@(#<I(%)E.B!.965D('!L=6=S  
M#0H@8GD@:S-D<FI`<F%D:7@N;F5T("A\*:6T@2&%R9&EN9RD-"B`@."D@96UA  
M:6P@861D<F5S<R!09B!!4E),#0H@8GD@5&5R<GD@0G5R9V4@/'1E<G)Y8G5`  
M;F5T;6%N+D5.4RY414LN0T]-/@T\*("`Y\*2!-;W)E(&]N(#\$V-C`@2VAZ(&%C  
M=&EV:71Y#0H@8GD@4F%Y(\$1E;FYI<R`\8V)M8F5S=\$!I>"YN971C;VTN8V]M  
M/@T\*(`\$P\*2!293H@96UA:6P@861D<F5S<R!09B!!4E),#0H@8GD@<W1E=F5R  
M0&-Y8F5R8V]M;2YN970@\*%-T97!H86X@4F%S:&MI;BD-"B`Q,2D@4D4Z(%50  
M4R!2871E<PT\*(&)Y(")3=&5V92! (;W-E(B`\3E5(3U-%0&)E9F%C+FEN9'-T  
M871E+F5D=3X-"B`Q,BD@86Y0=&AE<B!L;V%D#0H@8GD@<W1E=F5R0&-Y8F5R  
M8V]M;2YN970@\*%-T97!H86X@4F%S:&MI;BD-"B`Q,RD@5U1".B`@,38P(&UE  
M=&5R('AM='(@;W(@<F5C;VUM96YD871I;VYS(`T\*(&)Y('!M:6QL<T!C>6)E  
M<FAO=7-E+F-O;2`H4&AI;"!-:6QL<RD-"B`Q-"D@4F4N(\$%C=&EV:71I97,@  
M;VX@,38V,"!+0PT\*(&)Y(%1/32Y!+D%\$04U30&UA:6PN861M:6XN=VES8RYE  
M9'4-"B`Q-2D@4F4Z(\$U0<F4@;VX@,38V,"!+:`H@86-T:79I='D-"B!B>2!\*  
M86-Q=65L:6YE(\$AE<FUA;B`\:FAE<FUA;D!S:65R<F\$N;F5T/@T\*(`\$V\*2`Y  
M(%!I;B!0;'5G+U-08VME=`T\*(&)Y(\$U/1%-415!(0\$%#4RY%2U4N1415#0H@  
M,3<I(%-P>2!3:&EP(%)A9&EO(\$5Q=6EP;65N=`T\*(&)Y(%1/32Y!+D%\$04U3  
M0&UA:6PN861M:6XN=VES8RYE9'4-"B`Q."D@4F4Z(&5M86EL(&%D9')E<W,@  
M;V8@05)23`T\*(&)Y(&LQ>F%T0&)A:"YC;VT-"B`Q.2D@5U1"+BXN2F]H;G-O

M;B!61BTQ,C(-"B!B>2!S=&5V97)`8WEB97)C;VUM+FYE="`H4W1E<&AA;B!2  
M87-H:VEN\*0T\*(#(P\*2!M86YY('1H86YK<PT\*(&)Y(&%R=&AE<BYD96YT0'-M  
M='`N<')O<W1A<BYC;VT-"B`R,2D@0D\$@0F]O:PT\*(&)Y(\$)I;&P@365A<F\$@  
M/#<T-3,W+C\$Q,#!`8V]M<'5S97)V92YC;VT^#0H@,C(I(%)E.B!.;V)A='')O  
M;G,-"B!B>2!0971E<B!&97)R86YD(#QP9F5R<F%N9\$!S8V]O="YN971I<RYC  
M;VT^#0H@,C,I(%)%.B!E;6%I;"!A9&1R97-S(&]F(\$%24DP-"B!B>2`B0V%R  
M8VEA+"!\*;V4L("!.2C%1(B`\:F-A<F-I84!A<G)L+F]R9SX-"B`R-"D@\*&YO  
M(' -U8FIE8W0I#0H@8GD@ (DHN(\$UA<FL@0F]L=&]N(B`\8V]A<W1A;&5M8T!S  
M=6YB96QT+FYE=#X-"B`R-2D@4F4Z(%=40CH@(#\$V,"!M971E<B!X;71R(&]R  
M(')E8V]M;65N9&%T:6]N<R`-"B!B>2!J;6Q`<W!I9&5R+FQL;WED+F-O;2`H  
M2FEM(\$Q08VMW;V]D\*0T\*(#(V\*2!%;F]U9V@@;V8@=&AE(#\$V-C`@9&ES8W5S  
M<VEO;G,-"B!B>2!J;6Q`<W!I9&5R+FQL;WED+F-O;2`H2FEM(\$Q08VMW;V]D  
M\*0T\*(#(W\*2!6:6YT86=E(%-30B!4;VYI9VAT#0H@8GD@ (DIA8VL@1VEE:&PB  
M("`\2D%#2T='<S\$N>&5T<F]N+F-O;3X-"B`R."D@1')A:V4@5'5N97(M57!P  
M97(\_/PT\*(&)Y(\$)E<FYI92!3:V]C:"`\-S4S-S8N,3)`8V]M<'5S97)V92YC  
M;VT^#0H@,CDI(\$UE;7!H:7,@0F5L;`T\*(&)Y(')S;VQ0;6]N0'1E>'1R;VXN  
M8V]M("A\$:6-K(%-O;&]M;VXI#0H@,S`I(\$UO<F4@4F4Z(%9I;G1A9V4@4U-"  
M(%10;FEG:'0-"B!B>2!J;6EL;&5R0'1E;&5T96%M+F-O;2`H2F%Y(\$@N(\$UI  
M;&QE<BD-"B`S,2D@96UA:6P@861D<F5S<R!09B!!4E),#0H@8GD@5&5R<GD@  
M0G5R9V4@/'1E<G)Y8G5`;F5T;6%N+D5.4RY414LN0T]-/@T\*(#,R\*2`S,"!C  
M96YT(#9!1S=S("AW:71H(&\$@8V%T8V@N+BXI#0H@8GD@;6IS:6QV84!I>"YN  
M971C;VTN8V]M("AM:6-H865L(' -I;'9A\*0T\*(#,S\*2!-96UP:&ES(\$)E;&QE  
M#0H@8GD@;C509F9`=S5D9&PN86%R82Y0<F<-"B`S-"D@2%M,3@P("`\4T(M  
M,3`P(\$EN9F\@4F5Q=65S=&5D+B`@06YY(\$-L96=G(\$)!(\$EN=&5R97-T/PT\*  
M(&)Y(%=I=&UE<FIR0&%0;"YC;VT-"B`S-2D@4TM..B!7:&%T8VAA(&=0;FYA  
M('5S93\-"B!B>2!\*86-Q=65L:6YE(\$AE<FUA;B`\:FAE<FUA;D!S:65R<F\$N  
M;F5T/@T\*#0HM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM  
M+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM  
M=2P@,C\$@1&5C(#\$Y.34@,38Z-3(Z,30@+3`U,#`-"D9R;VTZ(")2:&5T="!4  
M+B!'96]R9V4B(#QR=&=`964N9'5K92YE9'4^#0I4;SH@8F]A=&%N8VAO<G-`  
M=&AE<&]R8V@N8V]M#0I3=6)J96-T.B!-97)R>2!#:' )I<W1M87,-"DUE<W-A  
M9V4M240Z(#PQ.3DU,3(R,3(Q-3(N44%!-3DQ-#9'964N9'5K92YE9'4^#0H-  
M"@T\*(\$A0;&ED87D@1W)E971I;F=S+"!-97)R>2!#:' )I<W1M87,L#0H@86YD  
M(&\$@2&%P<'D@3F5W(%EE87(@=&\@;VYE(&%N9"!A;&PN#0H@02!N;W1E(&]F  
M(' -P96-I86P@=&AA;FMS('10(%-A;G1A(\$)!#0H@=VAO(' -O(&=E;F5R;W5S  
M;'D@9&ES=' )I8G5T960@='5N:6YG(`T\*(&-A<"!G<F]M;65T<R!F<F]M(&AI  
M<R!L87)G97-S+@T\*#0HW,R`@("!2:&5T="`M(\$M%- \$A)2`T\*#0HM+2TM+2TM  
M+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2T-"@T\*1&%T93H@5&AU+"`R,2!\$96,@  
M,3DY-2`Q-#HT,#HQ,R`M,#@P,"`H4%-4\*0T\*1G)O;3H@2F%C<75E;&EN92!(  
M97)M86X@/I86Y`<VEE<G)A+FYE=#X-"E10.B!-24M%(%-!3D1%4E,@  
M/&MS,&9`8F%S:6,N;F5T/@T\*0V,Z(\$UU;'1I<&QE(')E8VEP:65N=' ,@;V8@  
M;&ES="`\8F]A=&%N8VAO<G-`=&AE<&]R8V@N8V]M/@T\*4W5B:F5C=#H@4F4Z  
M(%5P<&5R(&-A<V4L5FEK:6YG(\$EN=F%D97)S+\$A23R!C;VEL<RP@4TM.#0I-  
M97-S86=E+4E\$.B`\4&EN92Y354XN,RXY,2XY-3\$R,C\$Q-#,V-3`N,C8X,C%"  
M+3\$P,#`P,\$!D:6%M;VYD/@T\*#0I/;B!4:'4L(#(Q(\$1E8R'Q.3DU+"!-24M%  
M(%-!3D1%4E,@=W)O=&4Z#0H^("`\@6E54("`\@("`H86QW87ES('5P<&5R(&-A  
M<V4I#0H^("`\@,#@P-5H@3D]324=3#0H^("`\@,#@Q,%H@3D]324=3#0H^("`\@  
M,#@Q-5H@3D]324=3#0H-"B`@("`P.#\$U6B!"14=)3B!324Q%3E0@4\$5224]\$

M#0H-"DIE9F8@3D@V24Q<-R`H97@@0V]A<W1I92!#5R!O<"!A="!.34\I#0H-  
M"BTM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+0T\*#0I\$871E.B!4:'4L  
M(#(Q(\$1E8R`Q.3DU(#\$W.C(W.C0S("TP-3`P("A%4U0I#0I&<F]M.B!0971E  
M<B!&97)R86YD(#QP9F5R<F%N9\$!S8V]0="YN971I<RYC;VT^#0I4;SH@4V-0  
M='1?2F]H;G-0;B5T97%M9T!E;6%I;"YS<',N;6]T+F-0;2P@8F]A=&%N8VAO  
M<G-`=&AE<&]R8V@N8V]M#0I3=6)J96-T.B!293H@4D4^4V]R96YS;VX@3F]B  
M871R;VX-"DUE<W-A9V4M240Z(#PQ.3DU,3(R,3(R,C<N4D%!,C@W,S)`<V-0  
M;W0N;F5T:7,N8V]M/@T\*#0H-"D%((2!.;T)A='1E<GDN+BXN+G=E;&P@:70@  
M<V]U;F1S('!O<W-I8FQE(\$D@9W5E<W,N(%1H86YK<RX-"@T\*#0I.;W!E+"!N  
M;W0@:6YT97)E<W1E9"!I;B!Y;W5R<RP@;F\@;6%T=&5R('=H97)E(&ET(&ES  
M(&EN(')E;&%T:6]N#0IT;R!M92X@22!N965D(#(V('90;'1S('=E;&P@<F5G  
M=6QA=&5D+"!A;F0@=&AI<R!O;F4@9&]E<R!T:&%T+'T\*8G5T('1H<G4@82!C  
M;VYV96YT:6]N86P@<F5M;W1E('E;G-E(&-I<F-U:70@=VET:"!T:&4@,S`@  
M>65A<@T\*;VQD('!R86-T:6-E(&]F('5S:6YG(&%S(&UA;GD@<&%R=',@87,@  
M<&]S<VEB;&4N('T\*#0I.;W@<:68@22!C;W5L9"!O;FQY(&=E="!I="!T;R!3  
M2%54(%50(0T\*#0HW,RP-"BU0971E#0I70C)13\$P-"G!F97)R86YD0'-C;V]T  
M+FYE=&ES+F-0;0T\*#0HN+D%N9"!#:'!)I<W1M87,@86YD(\$YE=R!996%R<R!G  
M<F5E=&EN9W,@=&\@86QL(&%N9"!S=6YD<GDN(\$D@:&]P90T\*4V%N=&\$@8G)I  
M;F=S(&UE(&\$@<W5N9')Y('1H:7,@>65A<B'M(&ET('=0=6QD(&]B=FE0=7-L  
M>2!M86ME(&UY(&QI9F4-"F-0;7!L971E+@T\*#0H-"@T\*+2TM+2TM+2TM+2TM  
M+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM  
M,38Z-30Z,C0@+3`V,#'- "D9R;VTZ(&IM:6QL97)`=&5L971E86TN8V]M("A\*  
M87D@2"X@36EL;&5R\*0T\*5&\Z(&)0871A;F-H;W)S0'1H97!O<F-H+F-0;0T\*  
M4W5B:F5C=#H@.2U0:6X@4&QU9W,- "DUE<W-A9V4M240Z(#QV,#\$U,3`Q,#EA  
M8V9F-#(Q9&4W8F9`6S(P-2XQ.3@N,3\$P+C(T73X-"@T\*/B`@("`@5W)O;F<A  
M("!3965M<R!T:&%T(&EN<W1E860@;V8@82`B;F]R;6%L(B!08W1A;"!P;'5G  
M+V]C=&%L(' -08VME='T\*/G-E="!U<"P@2F]H;G-0;B!U<V5D(&\$@3DE.12!P  
M:6X@<&QU9R]S;V-K970@8V%B;&4N+BX-"CX-"@T\*06PM(\$-O;&QI;G,@=7-E  
M<R!T:&4@<V%M92`Y+7!I;B!P;'5G(&90<B!T:&4@-3%3+3\$@<&]W97(@8V]R  
M9"X@22!W:6QL(&1I9PT\*87)0=6YD(&%N9"!S964@:68@22!C86X@;&]C871E  
M(' -O;64@<W!A<F5S+B!7:6QL(&%L<V\@8VAE8VL@;W5T('1H92!C86)L97,-  
M"G=I=&@@;7D@26YV861E<B`R,#`P(&%N9"!S964@:68@22!H879E('=H870@  
M22!N965D+@T\*#0HW,PT\*#0HJ\*BHJ\*BHJ\*BHJ\*BHJ\*BHJ\*BHJ\*BHJ\*BHJ\*BHJ\*BHJ\*  
M87D@36EL;&5R+"!+2S5)30T\*:FUI;&QE<D!T96QE=&5A;2YC;VT-"BHJ\*BHJ  
M\*BHJ\*BHJ\*BHJ\*BHJ\*BHJ\*BHJ\*BHJ\*BHJ\*BHJ\*BHJ\*BH-"@T\*#0H-"BTM+2TM+2TM+2TM+2TM  
M+2TM+2TM+2TM+2TM+0T\*#0I\$871E.B!4:'4L(#(Q(\$1E8R`Q.3DU(#\$Y.C(R  
M.C`P("TP-3`P("A%4U0I#0I&<F]M.B`B0F%R<GD@3"X@3W)N:71Z(B`\=3@U  
M-C`Q,\$!E87-T;6%N+F-0;3X-"E10.B!P9F5R<F%N9\$!S8V]0="YN971I<RYC  
M;VT-"D-C.B!";V%T86YC:&]R<R`\8F]A=&%N8VAO<G-`=&AE<&]R8V@N8V]M  
M/@T\*4W5B:F5C=#H@3F]B871R;VYS#0I-97-S86=E+4E\$.B`\4&EN92Y53%0N  
M,RXY,2XY-3\$R,C\$Q.#4Y-38N,3(X-#E#+3\$P,#`P,\$!D=6\$Q-3`N:W!T+F5M  
M;BYC;VT^#0H-"DD@:&%V92!A(' -C:&5M871I8R!F;W(@;VYE('9E<G-I;VX@  
M;V8@82!3;W)E;G-E;B!1+4Y08F%T<F]N(' -U<'!L>2X@(\$D-"F10=6)T(&ET  
M(&ES('E0=7(@=6YI="!B=70@=&AE<F4@;6%Y(&)E(' -I;6EL87)I=&EE<R!T  
M:&%T('=I;&P@:&5L<"!Y;W4-"G1R;W5B;&5S:&]0="!I="X@#0H-"DUA;GD@  
M;V8@=&AE<V4@<W5P<&QI97,@=V5R92!A(&AY8G)I9"!S=VET8VAI;F<O;&EN  
M96%R(' -U<'!L>2X@(%1H92!G970-"F=0;V0@<F5G=6QA=&E0;BP@82!L:6YE  
M87(@<W5P<&QY(&ES(&YE961E9"!B=70@=&AI<R!W;W5L9"!C875S92!E>&-E

M<W-I=F4-"G!O=V5R(&1I<W-I<&%T:6]N(&%T(&QO=R!O=71P=70@=F]L=&%G  
M97,N("!4:'5S(&\$@<W=I=&-H:6YG('!U<'!L>2!W87,-"G5S960@=&\@<')E  
M+7)E9W5L871E('!H92!I;G!U="!V;VQT86=E('!10('!H92!L:6YE87(@<F5G  
M=6QA=&]R+B`@5&AI<PT\*=F]L=&%G92!W87,@='EP:6-A;&QY(&\$@9F5W('!90  
M;'!1S(&%B;W9E('!H92!D97-I<F5D(&]U='!U="!V;VQT86=E+B`@5VET:`T\*  
M=&AI<R!A<G)A;F=E;65N="P@=F5R>2!L87)G92!C=7)R96YT('!-W:6YG<R!O  
M;B!T:&4@;W5T<'5T(&-A;B!C875S90T\*:6YS=&%B:6QI='D@:6X@=&AE(')E  
M9W5L8710<B!C:7)C=6ET+B`@1F%I<FQY(&QO=R!S=VET8VAI;F<@9G)E<75E  
M;F-I97,-"G=E<F4@=7-E9"!I;B!T:&5S92!E87)L>2!S=7!P;&EE<R!W:&EC  
M:"!M86ME<R!T:&4@<VET=6%T:6]N('!O<G-E+B`- "@T\*3VYE('!O<W-I8FQE  
M('!-U9V=E<W1I;VX@:7,@=&\@:&%N9R!S;VUE(\$Q!4D=%(&-O;7!U=&5R(&=R  
M861E(&5L96-T<F]L>71I8W,-"F%C<F]S<R!T:&4@;W5T<'5T+"!P97)H87!S  
M(&\$@9F5W(&AU;F1R960@=&A0=7-A;F0@;6EC<F]F87)A9',N("!!('!-I;7!L  
M97(L!#0IA;F0@<&5R:&%P<R!C:&5A<&5R+"!S=6=G97-T:6]N('!O=6QD(&)E  
M('!10('!5S92!T=V\@<VUA;&P@,3(@=F]L='T\*;6]T;W)C>6-L92!O<B!L87=N  
M;6]W97(@8F%T=&5R:65S(&EN('!-E<FEE<R!A8W)O<W,@=&AE(&]U='!U="X@  
M(\$]U<B!L;V-A;`T\*9&ES8V]U;G0@<W10<F4@8V%R<FEE<R!T:&5S92!S;6%L  
M;"!L96%D+6%C:60@8F%T=&5R:65S(&90<B!A(&9E=R!D;VQL87)S!#0IE86-H  
M+B`@5&AE(&)A='!E<FEE<R!W;W5L9"!S=7!P;'D@=&AE(&-U<G)E;G0@<&5A  
M:W,@86YD(')E8VAA<F=E(&1U<FEN9PT\*=&AE(&-U<G)E;G0@=F%L;&5Y<RX@  
M(%)U;FYI;F<@:6X@8V]N<W1A;G0@=F]L=&%G92!F;&]A="!S97)V:6-E+"!T  
M:&5Y!#0IS:&]U;&0@;VYL>2!R97%U:7)E('!H92!P97)I;V1I8R!A9&1I=&EO  
M;B!09B!D:7-T:6QL960@=V%T97(N("!296QA=&EV96QY!#0IS;6%L;"!A;7`M  
M:&]U<B!B871T97)I97,@<VA0=6QD(&)E('!-U:71A8FQE(&%S('!H97D@87)E  
M(&Y0="!C86QL960@;VX@=&\-"G-U<'!L>2!C;VYT:6YU;W5S('!O=V5R+B`@  
M5&AE:7(@969F96-T:79E(&-A<&%C:71A;F-E('!I;&P@8F4@;6%N>2!&05)!  
M1%,-"FEN('!H:7,@87!P;&EC871I;VXN("!7:71H('!H92!B871T97)I97,@  
M9G5L;'D@8VAA<F=E9"P@<V5T('!H92!P;W=E<B`-"G-U<'!L>2!O=71P=70@  
M=F]L=&%G92!A="!A('!90;'!1A9V4@<W5F9FEC:65N="!T;R!S=7!P;'D@82!T  
M<FEC:VQE(&-H87)G92`-"G10('!H92!B871T97)I97,@\*&)E='!E96X@,"XP  
M,2!A;F0@,"XQ('!H92!A;7`M:&]U<B!R871E+"!I+F4N(&90<B!A(#0@/#0IA  
M;7`M:'(@8F%T=&5R>2P@<V5T('!H92!V;VQT86=E('!10('!R;V1U8V4@87!P  
M<F]X:6UA=&5L>2`Q,#`@;4\$@8VAA<F=I;F<@/#0IC=7)R96YT(&]N('!H92!B  
M871T97)I97,@=VET:"!N;R!A9&1I=&EO;F%L(&QO860@8V]N;F5C=&5D\*2X-  
M"@T\*5&AE(&)R;W=N(&]B:F5C="!I<R!L:6ME;'D@=&AE(&5N97)G>2!S=&]R  
M86=E(&-H;VME(&90<B!T:&4@<W=I=&-H:6YG!#0IS=7!P;'DL(&)U="!)(&UA  
M>2!B92!M:7-T86ME;BX@(%-O<F5N<V5N(&UA9&4@82!L87)G92!N=6UB97(@  
M;V8@9&EF9F5R96YT!#0IS=7!P;&EE<RX@(\$D@86T@9V]I;F<@8GD@=&AE(&]N  
M92!)(&AA=F4N(`T\*!#0I3=7)P;'5S('!E="!C96QL(&YI8VME;"UC861M:75M  
M(&)A='!E<FEE<R!O<B!%9&ES;VX@8V5L;' ,@=V]U;&0@8F4@979E;@T\*8F5T  
M=&5R+B`@22!T:&EN:R!T:&4@96QO<75E;G0@0F]B(\$ME>7,@:7,@=&AE(&5X  
M<&5R="!O;B!%9&ES;VX@8V5L;' ,N(`T\*!#0H@(" `W,RP@0F%R<GD@(%=!-%9:  
M42`@;W)N:71Z0&5A<W1M86XN8V]M!#0H-"BTM+2TM+2TM+2TM+2TM+2TM+2TM  
M+2TM+2TM+2TM+0T\*!#0I\$871E.B!4:'4L(#(Q(\$1E8R`Y-2`Q.#HT,CHP,"!0  
M4U0-"D9R;VTZ(")#<F%I9R!!;F1E<G-O;B`M(\$5X="X@,3,V-"(@/\$-!;F1E  
M<G-00!-M='`N<W1P+G1E8RYM;BYU<SX-"E10.B`B)T)0871A;F-H;W)S)R(@  
M/&)0871A;F-H;W)S0`!H97!O<F-H+F-O;3X-"E-U8FIE8W0Z(%(S.3!!(&UA  
M;G5A;"!N965D960-"DUE<W-A9V4M240Z(#PS,\$1!,44S1D!S;71P+G-T<"YT

M96,N;6XN=7,^#0H-"@T\*1&]E<R!A;GEO;F4@:&%V92!A;B!O<FEG:6YA;"!2  
M,SDP02!M86EN=&5N86YC92!M86YU86PH;F]T(&\$@8V]P>2XI(\$D@5V]U;&@@  
M#0IR96%L;'D@;&EK92!T;R!P=7)C:&%S92!T:&4@,3DV,2!E9&ET:6]N('=H  
M:6-H(&ES('!R;V)A8FQY('1H92!M;W-T(&-O;6UO;FQY('T\*879A:6QA8FQE  
M(&]N92X-"@T\*0W)A:6<L(\$LP05I"#0IC86YD97)S;T!S;71P+G-T<"YT96,N  
M;6XN=7,-"@T\*+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM#0H-"D1A  
M=&4Z(%1H=2P@,C\$@1&5C(#\$Y.34@,C`Z,3DZ,SD@+3`U,#`-"D9R;VTZ(&LS  
M9')J0')A9&EX+FYE="`H2FEM(\$AA<F1I;F<I#0I4;SH@8F]A=&%N8VAO<G-`  
M=&AE<&]R8V@N8V]M#0I3=6)J96-T.B!293H@3F5E9"!P;'5G<PT\*365S<V%G  
M92U)1#H@/#\$Y.34Q,C(R,#\$Q.2Y504\$Q,#DV.\$!N97=S,2YR861I>"YN970^  
M#0H-"CX-"CX@("`@(\$%N>6]N92!H879E(&YI;F4M<&EN('!L=6<O<V]C:V5T  
M("AM86QE(&%N9"!F96UA;&4I(&9O<B!C;VYS=')U8W1I;F<-"CYT:&4@<&]W  
M97(@8V%B;&4L(\$D@<VAO=6QD(&%P<')E8VEA=&4@:&5A<FEN9R!F<F]M('EO  
M=2X@(\$ET(&ES('!-I;6EL87(-"CYT;R!A('1U8F4@;V-T86P@<V]C:V5T+V)A  
M<V4L(&-O;7!L971E('!-I=&@@:V5Y=V%Y+"!E>&-E<'0@:70@:&%S(\$Y)3D4-  
M"CXC)4`F\*d`D\*%X@<&EN<RX-"CX-"CX@("`@(#<S+"`@06P@3C5!250-"CX@  
M(&UO9'-T97!H0&%C<RYE:W4N961U#0H-"DAI(\$%L+"!D<F]P(&UE(&%N(&4M  
M;6%I;"!W:71H('EO=7(@861D<F5S<R!A;F0@>6]U)VQL(&AA=F4@=VAA="!Y  
M;W4@;F5E9"\$A(0T\*22!H879E(&\$@;FEN92!P:6X@;6%L92!A;F0@82!N:6YE  
M('!I;B!F96UA;&4@8V]N;F5C=&]R+B`@0F]T:"!A<F4@<V5T('5P('10#0IB  
M92!A="!T:&4@96YD<R!09B!C86)L97,N("!\$;VXG="!K;F]W(&EF('1H:7,@  
M:7,@15A!0U1,62!W:&%T('EO=2!N965D+"!B=70-"G1H97D@87)E('=H870@  
M>6]U(&1E<V-R:6)E9"X-"@T\*-S,@+2!\*:6T@(\$LS1%)\*#0IK,V1R:D!R861I  
M>"YN970-"@T\*#0HM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2T-"@T\*  
M1&%T93H@5&AU+"`R,2!\$96,@,3DY-2`Q-#HP,#HT-"!04U0-"D9R;VTZ(%1E  
M<G)Y(\$)U<F=E(#QT97)R>6)U0&YE=&UA;BY%3E,N5\$5++D-/33X-"E10.B!B  
M;V%T86YC:&]R<T!T:&5P;W)C:"Y#3TT-"D-C.B!T97)R>6)U0&YE=&UA;BY4  
M14LN0T]-#0I3=6)J96-T.B!E;6%I;"!A9&1R97-S(&]F(\$%24DP-"DUE<W-A  
M9V4M240Z(#PY-3\$R,C\$R,C`P+D%!,38Q-SA`;F5T;6%N+D5.4RY414LN0T]-  
M/@T\*#0I!;GEO;F4@:VYO=R!T:&4@:6YT97)N970@861D<F5S<R!09B!T:&4@  
M05)23"X@02!F<FEE;F0@;V8@;6EN92!F87AE9"!I;@T\*82!S=6)S8W)I<'1I  
M;VX@9F]R(&UE(&)U="!G879E('1H92!O;&0@861D<F5S<R!I;G-T96%D(&]F  
M('1H92!N97<-"E!/((\$)O>"X@069T97(@86)O=70@82!Y96%R(\$D@=&AI;FL@  
M=&AE('!O<W0@;V9F:6-E(&ES(&%B;W5T(')E861Y('10#0IS=&]P(&9O<G=A  
M<F1I;F<@=&AE(&UA:6PN#0H-"E1E<G)Y#0I+23=-#0H-"BTM+2TM+2TM+2TM  
M+2TM+2TM+2TM+2TM+2TM+2TM+0T\*#0I\$871E.B`R,B!\$96,@,3DY-2`P,CHP  
M-CHS-R!'350-"D9R;VTZ(%)A>2!\$96YN:7,@/&-B;6)E<W1`:7@N;F5T8V]M  
M+F-O;3X-"E10.B!B;V%T86YC:&]R<T!T:&5P;W)C:"YC;VT-"E-U8FIE8W0Z  
M(\$UO<F4@;VX@,38V,"!+:`H@86-T:79I=`D-"DUE<W-A9V4M240Z(#PT8F0S  
M<F0D,S<X0&EX;F5W<S@N:7@N;F5T8V]M+F-O;3X-"@T\*5&]D87DL(\$D@<W!O  
M:V4@=VET:"!\*;VAN(\$PN(%-U;&QI=F%N+"!A;B!09F9I8VEA;"!W:71H(%=\*  
M1\$T@:6X@16QI>F%B971H+"`-"DY\*(&%N9"!H860@82!V97)Y(&EN=&5R97-T  
M:6YG(&-O;G9E<G-A=&EO;BX-"@T\*2&4@<V%I9"!T:&%T('1H97D@:&%D(&=O  
M='1E;B!@0T,@87!P<F]V86P@:G5S="!B9690<F4@=&AE>2!W:71H9')E=R!T  
M:&4@#0IA;&Q08V%T:6]N('!L86XN("!4:&5Y('!U="`Q-C8P(&]N('1H92!A  
M:7(@82!C;W5P;&4@=V5E:W,@86=O+@T\*#0I)="!S965M<R!T:&5I<B!S:71U  
M871I;VX@:7,@87,@9F]L;&]W<SH@(%=\*1\$T@:7,@82!D87ET:6UE<B!O;B`Q  
M-3,P(\$MH>B`-"G=I=&@@;F\@8VAA;F-E(&9O<B!A;GD@:VEN9"!09B!N:6=H

&#x26;M92!0<&5R871I;VXN("!4;R!C!VUP;&EC871E('1H92`- "G!R;V)L96TL  
 M('1H97D@87)E(&Q08V%T960@:6X@82!S=V%M<'D@87)E82!09B! .97<@2F5R  
 M<V5Y('=H97)E(' -E=F5R86P@#0I .97<@66]R:R!#:71Y(' -T871I;VYS(&AA  
 M=F4@;&]C871E9"!T:&5I<B!T<F%N<VUI='1E<G,N("!4=V@;V8@=&AE('T\*  
 M<W1A=&EO;G,@8W)E871E(&%N(&EN=&5R;6]D(&]R(&1I<&QE>&EN9R!S:71U  
 M871I;VX@=VAE<F4@=&AE:7(@<VEG;F%L<R`- "F-O;6)I;F4@86YD(&-R96%T  
 M92!I;G1E<F9E<F5N8V4@;VX@,34S,"`H<W5C:"!A<R`W,C`@<&QU<R`X,3`I  
 M+B`@5TI\$32!I<R`- "G1H92!0;FQY(&)R;V%D8V%S="!0=71L970@:6X@82!M  
 M87)K970@;V8@,3`P+##`P,"!P96]P;&4N("!4:&4@1D-#('T\*8V]N<VED97)  
 M9"!I="!A(&AA<F1S:&EP(&-A<V4N#0H-"DEN(&]R9&5R('10(' -T87D@;VX@  
 M=&AE(&%I<B!72D1-(&AA9"!L969T('1H96ER('!R979I;W5S(&90<FUA="!A  
 M;F0@<V]L9`"- "G1H92!W:&]L92!D87D@=&\@86X@2&ES<&%N:6,@1V]S<&5L  
 M(&]U=&9I="X@(%1H97D@<VEM=6QC87-T('1H:7,@;VX@,38V,"`- "FEN('1H  
 M92!D87ET:6UE+B`@26X@;W)D97(@=&\@;65E="!M:6YI;75M(\$9#0R!0<&5R  
 M871I;F<@:&]U<G,@9F]R(&\$@#0IF=6QL+71I;64@<W1A=&EO;BP@(#\$V-C`@  
 M;75S="!S=&%Y(&]N('1H92!A:7(@=6YT:6P@,3`Z,#!P;2!L;V-A;"!T:6UE  
 M+B`@#0I4:&5Y(&%R92!R=6YN:6YG(&]L9&EE<R!F<F]M(' -U;F10=VX@=6YT  
 M:6P@,3`Z,#!P;2X@(%1H97D@:&%V92!R96-E:79E9`"- "G)E<&]R=',@9G)O  
 M;2!A<R!F87(@87=A>2!A<R!/<F5G;VXN("!)(&AA=F4@8F5E;B!R96-E:79I  
 M;F<@=&AE:7(@,2PP,#`@#0IW871T(&YI9VAT:6UE(' -I9VYA;"!I;B!\$97,@  
 M36]I;F5S(\$EO=V\$@;&]U9"!A;F0@8VQE87(N#0H-"E)A>2!\$96YN:7,- "D1E  
 M<R!-;VEN97,L(\$E!#0H-"@T\*+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM  
 M+2TM#0H-"D1A=&4Z(%1H=2P@,C\$@1&5C(#\$Y.34@,C\$Z,C`Z-#4@+3`U,#`-  
 M"D9R;VTZ(' -T979E<D!C>6)E<F-O;6TN;F5T("A3=&5P:&%N(%)A<VAK:6XI  
 M#0I4;SH@8F]A=&%N8VAO<G-`=&AE<&]R8V@N8V]M#0I3=6)J96-T.B!293H@  
 M96UA:6P@861D<F5S<R!09B!!4E),#0I-97-S86=E+4E\$.B`\,3DY-3\$R,C(P  
 M,C(P+E9!03`Y.#8P0')A=F5N+F-Y8F5R8V]M;2YN970^#0H-"CY!;GEO;F4@  
 M:VYO=R!T:&4@:6YT97)N970@861D<F5S<R!09B!T:&4@05)23"X@02!F<FEE  
 M;F0@;V8@;6EN92!F87AE9"!I;@T\*/F\$@<W5B<V-R:7!T:6]N(&90<B!M92!B  
 M=70@9V%V92!T:&4@;VQD(&%D9')E<W,@:6YS=&5A9"!09B!T:&4@;F5W#0H^  
 M4\$@\0F]X+B!!9G1E<B!A8F]U="!A('EE87(@22!T:&EN:R!T:&4@<&]S="!0  
 M9F9I8V4@:7,@86)O=70@<F5A9'D@=&\-"CYS=&]P(&90<G=A<F1I;F<@=&AE  
 M(&UA:6PN#0H^#0H^5&5R<GD-"CY+23=-#0H^#0IY=7`L(&ET)W,- "@T\*: '1T  
 M<#HO+W=W=RYA<G)L+F]R9R`- "@T\*-S,G<PT\*4W1E=F4L(%=! ,DY(6@T\*#0H-  
 M"BTM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+0T\*#0I\$871E.B`@("`@  
 M("`@("!4:'4L(#(Q(\$1E8R`Q.3DU(#(Q.C(U.C(W(\$535`T\*1G)O;3H@ (E-T  
 M979E(\$A0<V4B(#Q.54A/4T5`8F5F86,N:6YD<W1A=&4N961U/@T\*5&\Z(&)O  
 M871A;F-H;W)S0'1H97!0<F-H+F-O;0T\*4W5B:F5C=#H@4D4Z(%504R!2871E  
 M<PT\*365S<V%G92U)1#H@/#9",#%#,\$8U,#DV0&)E9F%C+FEN9' -T871E+F5D  
 M=3X-"@T\*/B`^("!4:&EN9W,@;75S="!B92!D:69F97)E;G0@87)O=6YD('1H  
 M92!C;W5N=')Y+B!54%,@:G5S="!L96%V97,@#0IP86-K86=E<R`^(#YN96%R  
 M('1H92!S:61E(&10;W(N#0H^(#X@('T\*/B`^ -S,@9&4@1&5N;FES+"!+1SE\$  
 M3R`@(&10;VYA;D!C;W)D;6,N9&YE="YE=&XN8V]M#0H^('T\*/B!!8W1U86QL  
 M>2P@=&AE>2!U<W5A;&QY(&10('1H870@:&5R92!T;V`N("!)('=0;F1E<B!I  
 M9B!T:&5Y('=0=6QD(&10(&ET(&EF#0H^('EO=2!H860@82!P87)C96P@=&AA  
 M="!W87,@:&5A=FEL>2!I;G-U<F5D/R`@36%Y8F4@=&AE:7(@:6YC<F5A<V5D  
 M(&-O<W1S(&90<@T\*/B!R97-I9&5N=&EA;"!D96QI=F5R>2!A<F4@9`5E('10  
 M('!A>6EN9R!09F8@ (G1H969T(&9R;VT@<&]R8V@B(&-L86EM<S`-"CX@#0H^

%-T86X@(%W3DE=&L97!O<G0N8V]M#0H-"D\$Q<F5A;"!H;W)R;W(@<W10  
M<GD@86)O=70@55!3+BXN07,@82!#;&%S<R!)24D@1FER96%R;7,@1&5A;&5R  
M(`T\*\*&UA8VAI;F5G=6YS\*2P@22!H860@;W)D97)E9"!T=V\@\*#(I(\$TM,38@  
M;6%C:&EN96=U;G,@9F]R(&\$@<[L:6-E(`T\*9&5P87)T;65N="\$X@(\$D@=V%S  
M('10(&QE879E(&]N(&\$@=')I<"!T;R!T:&4@3F5T:&5R;&%N9',@<V\@22`-  
M"F-H96-K960@=&AE(&1E;&EV97)Y(&1A=&4N+BYI="!W87,@=&\@8F4@=V5L  
M;"!A9G1E<B!M>2`- "G)E='5R;BX@(\$Y0="!W86YT:6YG('10('1A:V4@86YY  
M(&-H86YC97,@22!I;F90<FUE9"!54%,@;F]T('10(&UA:V4@#0IA;GD@9&5:  
M:79E<FEE<R!D=7)I;F<@;7D@86)S96YC92X@(%EE<RP@=VAE;B!)(')E='5R  
M;F5D(\$D@9F]U;F0@='=O(`T\*8F]X97,@870@=&AE(&9R;VYT(&10;W(@\*1H  
M97D@:&%D(&]N;'D@8F5E;B!T:&5R92!T:')E92!D87ES(2DN("@"@("@"@  
M("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@  
M("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@  
M("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("!"3=&5V92!+1#%\$5'T\*(  
M("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@  
M("@"@("@"@("!"!4E),(\$Q-#0H@("@"@("@"@("@"@("@"@("@"@("@"@("@"@  
M("@"@(\$%-4T%4(\$Q-+3,U-PT\*(  
M("@"@("!4D\$@3\$T-"B"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@  
M4E-'4E,-"B"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@4E-'0B@  
M("@"@#0H@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@  
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M("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@  
M("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@  
M("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("!"<7'T\*(  
M("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("Q'#0H@("@"@("@"@("@"@  
M("@"@("@"@("@"@("@"@("@"@("@"@("@"@("@"@("<7R)<("@"@#0I.54A/4T5'8F5F86,N:6YD  
M<W1A=&4N961U("@"@("@"@("AO?&[I("@"@("@"@("@"@(%1E<G)E(\$AA=71E  
M+"!")3@T\*+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+6]O3T\M\*%\I  
M+4]/;V\M+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+0T\*#0H@("@"@("@"@  
M("@"@("@"@("@"@("@"@("@"@("@"@("@"@("!"A;F0-"B"@("@"@("@"@("@"@  
M("@"@("@"@("@"@("@"@("@"@("@"@2F%C:R!T:&4@0V%T'#0H@("@"@("@"@  
M("BTM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+0T\*#0I\$871E.B!4:'4L  
M(#(Q(\$1E8R`Q.3DU(#(Q.C0S.C`W("TP-3`P'#0I<F]M.B!S=&5V97)`8WEB  
M97)C;VUM+FYE="H4W1E<AA;B!287-H:VEN\*0T\*5&\Z(&)0871A;F-H;W)S  
M0'1H97!O<F-H+F-O;0T\*4W5B:F5C=#H@86YO=&AE<B!L;V%D#0I-97-S86=E  
M+4E\$.B`\,3DY-3\$R,C(P,C0S+E9!03\$P-S0P0')A=F5N+F-Y8F5R8V]M;2YN  
M970^#0H-"DAI(%!E=&4L#0I#;W5L9"!Y;W4@9VEV92!M92!A('!H;VYE(&YU  
M;6)E<B!W:&5R92!)(&-A;@T\*8V]N=&%C="!Y;W4\_#0H-"E-T979E+"!703).  
M2%H-"@T\*<W1E=F5R0')A=F5N+F-Y8F5R8V]M+F-O;0T\*#0H-"BTM+2TM+2TM  
M+2TM+2TM+2TM+2TM+2TM+2TM+2TM+0T\*#0I\$871E.B!4:'4L(#(Q(\$1E8R`Q  
M.3DU(#(P.C0X.C4W("TP-C`P'#0I<F]M.B!P;6EL;'-'8WEB97)H;W5S92YC  
M;VT@\*%!H:6P@36EL;','I,#0I4;SH@8F]A=&%N8VAO<G-'=&AE<[R8V@N8V]M  
M#0I3=6)J96-T.B!75\$(Z("Q-C`@;65T97(@>&UT<B!O<B!R96-O;6UE;F1A  
M=&EO;G,@#0I-97-S86=E+4E\$.B`\,3DY-3\$R,C(P,C0X+E5!03(Y-S4T0&YS  
M+F-Y8F5R:&]U<V4N8V]M/@T\*#0I,861I97,@86YD(\$=E;G1L96UE;BP-"@T\*  
M("@"@("@"@("!)(&9I;F0@22!W:7-H('10('1A:V4@<%R="!I;B!T:&4@86-T  
M:79I=&EE<R!O;B`Q-C`@;65T97)S+BXN+F%F=&5R#0IL;V]K:6YG(&%T('=H  
M870@22!H860@;VX@:&%N9"P@22!F:6YD('1H870@22!H879E(#,@9FEN92!



M02!R96-E:79E<G,@8V%P86)L90T\*;V8@8V]V97)I;F<@=&AI<R!B86YD(&)U  
M="!N;W1H:6YG('1H870@=VEL;"!T<F%N<VUI="!O;B!I="X@(\$1097,@86YY  
M;VYE(&AA=F4-"F\$@,38P(&UE=&5R(&-A<&%B;&4@>&UT<BP@<')E9F5R86)L  
M>2!V9F\@8V]N=')O;&QE9"P@=VET:"!E;F]U9V@@;W5T<'5T("U,"`-"G=A  
M='1S/RD@=&\@9')I=F4@86X@86UP;&EF:65R('1H870@=&AE>2!W:7-H('10  
M(' -E;&P\_(")("'=0=6QD(&%L<V\@;&EK90T\*=&\@:&5A<B!F<F]M(&%N>6]N  
M92!W:&\@:&%S(')E8V]M;65N9&%T:6]N<R!F;W(@=VAA="!)( ' -H;W5L9"!G  
M970N#0H-"G1H86YK<RP-"E!H:6P-"@T\*4&AI;"! -:6QL<RP@04(U5\$@-"G!M  
M:6QL<T!C>6)E<FA0=7-E+F-O;0T\*-S\$S+30X,BTR-S8S#0H-"@T\*+2TM+2TM  
M+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM#0H-"D1A=&4Z(%1H=2P@,C\$@1&5C  
M(#DU(#(Q.C`P(\$-35`T\*1G)O;3H@5\$]-+D\$N041!35-`;6%I;"YA9&UI;BYW  
M:7-C+F5D=0T\*5&\Z(&)0871A;F-H;W)S)71H97!O<F-H+F-O;4!V;7,N;6%C  
M8RYW:7-C+F5D=0T\*4W5B:F5C=#H@4F4N(\$%C=&EV:71I97,@;VX@,38V,"!+  
M0PT\*365S<V%G92U)1#H@/\$9#3\$PP,#\$X+D9#3\$PP,#0Y0&UA:6PN861M:6XN  
M=VES8RYE9'4#0H-"G10.B!B;V%T86YC:&]R<T!T:&5P;W)C:"YC;VT-"@T\*  
M4F4N('1H;W-E(\$=A=V1A=V9U;"!D871A(' -I9VYA;' ,@:6X@=&AE(#\$W,#`@  
M+2`Q.#`P(\$M(>B!R86YG93L-"@T\*1&%M;F5D(&EF(\$D@:VYO=R!F;W(@8V5R  
M=&%I;B!W:&%T('1H97D@87)E+"!B=70@=&AE(&QI8V5N<V5E(&1A=&\$@8F%S  
M92!S;V9T+0T\*=V%R92!T:&%T(\$UO;FET;W)I;F<@5&EM97,@+R!'<F]V92!%  
M;G1E<G!R:7-E<R!S;VQD(&\$@8V]U<&QE('EE87)S(&)A8VL@<VA0=W,-"F\$@  
M=VA0;&4@<V@J=&Q0860@;V8@97AP97)I;65N=&%L(&QI8V5N<V5S+"!A;F0@  
M;&EC96YS97,@9F]R(&U08FEL92!S=&%T:6]N<PT\*:6X@=&AE(&5N=&ER92!R  
M86YG92!B971W965N(#\$V-3`@86YD(#(P,#`@2TAZ+B!4:&%T(&EN8VQU9&5S  
M(%1/3E,@;V8@)V5M('1H870-"F%R92!)3E-)1\$4@;V8@=&AE(#\$V,"!M971R  
M92!H86T@8F%N9"X@5&AE>2=R92!L:6-E;G-E9"!T;R!B:6<@=&EM92P@:&5A  
M=GD@:&ET+0T\*=&5R(&-O<G!O<F%T:6]N<RX-"@T\*3VX@,38P+"!T:&4@8F]Y  
M<R!H879E(' -O<G1A('1E;G1A=&EV96QY(&ED96YT:69I960@=&AE(&]N97,@  
M:6YS:61E('1H92!B86YD(&%S#0HB9FES:&EN9R!B96%C;VYS(CL@=')A;G-M  
M:71T97)S(&%T=&%C:&5D('10('5N;6%N;F5D(&1R:69T(&YE=' ,@9FQ0871I  
M;F<@:6X@=&AE#0I`=6QF(&]F(\$UE>&EC;R!09F8@=&AE(\$Q0=6ES:6%N82!A  
M;F0@5&5X87,@8V]A<W1S+B!3=7!P;W-E9&QY+"!T:&4@1E-+(&1A=&\$-"F)U  
M<G-T<R!T:&5Y('1R86YS;6ET(&%R92!I9&5N=&EF:6-A=&EO;B!N=6UB97)S  
M+B!)(&AA=F5N)W0@=')I960@=&\@<F5A9"!A;GD-"F]F("=E;2!O;B!T:&4@  
M9&EG:71A;"!D96UU>"!B;W@L(&)U="!)( '1H:6YK(\$D@=VEL;"P@:G5S="!T  
M;R!S964@=VAA="!T:&5Y)W)E#0IS96YD:6YG+@T\*#0I4:&4@<')08V5D=7)E  
M(&ES(' -U<'!O<V5D('10(&)E('1H870@=&AE(&YE=' ,@87)E('9I<VET960@  
M8GD@<V5R=FEC:6YG(&)0871S#0IP97)I;V1I8V%L;'DN(\$]N8V4@82!G:79E  
M;B!T<F%N<VUI='1E<B!I<R!I9&5N=&EF:65D(&)Y(&ET)W,@8V]D92!N=6UB  
M97(L(&-O;BT-"G9E;G1I;VYA;"!\$+T8@=&5C:&YI<75E<R!A<F4@=7-E9"!T  
M;R!L;V-A=&4@:70N#0H-"DDG9"!J=7-T(\$Q/5D4@=&\@:VYO=R!H;W<@;75C  
M:"!P;W=E<B!T:&5S92!T:&EN9W,@87)E(')U;FYI;F<L(&%N9"!W:&%T('1H  
M90T\*:VEN9"!09B!A;G1E;FYA<R!T:&5Y)W)E('5S:6YG.R!I9B!T:&5Y(&%R  
M92!I;F1E960@:6X@=&AE(\$=U;&8L('1H97D@:&%V92!T;PT\*8F4@<G5N;FEN  
M9R!S;VUE('!R971T>2!H96%V>2!J=6EC92X@070@;FEG:'0L('1H97-E(&=I  
M>FUO<R!E9F9E8W1I=F5L>2!B;&]W#0IM86IO<B!H;VQE<R!I;B!T:&4@:&%M  
M(&)A;F0@87,@9F%R(&Y0<G1H(&%S('1H92!#86YA9&EA;B!B;W)D97(A#0H-  
M"E-P96%K:6YG(&]F('1H:7,@9G)E<75E;F-Y(')A;F=E.B!O;F-E(&%G86EN  
M+"!W92=R92!G971T:6YG(&5V:61E;F-E('1H870@=&AE#0IW:6YT97(@:&%S

M(&EN9&5E9"!A<G)I=F5D+B!!<R!T:&4@9W)O=6YD(&=E=',@9G)O>F5N(&EN  
M('1H92!H:6=H97(@;&%T:71U9&5S+'T\*=V4@8V%N(&]N8V4@;6]R92!H96%R  
M('1H92'U=&@L(#=T:"P@86YD(#ET:"!H87)M;VYI8W,@;V8@;&]N9R!W879E  
M(&%V:6%T:6]N#0IB96%C;VYS("A.1\$)S+"!O<B'B;F]N9&ER96-T:6]N86P@  
M8F5A8V]N<R(I(&%S('1H96ER(&-H965R9G5L(\$\$R(' -I9VYA;' ,@<F5E:PT\*  
M:&%V;V,@87,@:&EG:"!A<R'R+C4@34AZ(2!)(&10;B=T(&MN;W<@=VAY('1H  
M:7,@:&%P<&5N<RP@8G5T(&9O<B!T:&4@;&%S="`R#0IW:6YT97)S(\$DG=F4@  
M8F5E;B!H96%R:6YG('1H97-E(&1A;6YE9"!T:&EN9W,@9G)O;2!A<R!F87(@  
M87=A>2!A<R'W-3'@;6EL97,N#0H-"B'@("`@("`@("`@("`@("`@("`@("`@  
M("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@  
M("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@  
M#0HM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM-"@T\*1&%T93H@5&AU  
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M8VAO<G-'=&AE<&]R8V@N8V]M#0I3=6)J96-T.B'Y(%!I;B!O;'5G+U-08VME  
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M+@T\*#0H@("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@  
M("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@  
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M#0IO<B!E=F5N(')E8RYR861I;RYS:&]R='=A=F4@\*&AI;G0@:&EN="\$I+@T\*  
M#0I\*969F(\$Y(-DE,7#<- "@T\*+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM  
M+2TM#0H-"D1A=&4Z(%1H=2P@,C\$@1&5C(#\$Y.34@,C,Z,#<Z,#4@+3'U,#'@  
M\*\$535"D-"D9R;VTZ(\$U/1%-415!(0\$%#4RY%2U4N1415#0I4;SH@8F]A=&%N  
M8VAO<G-'=&AE<&]R8V@N8V]M#0I3=6)J96-T.B'Y(%!I;B!O;'5G+U-08VME  
M='T\*365S<V%G92U)1#H@/#'Q2%HS-\$(P2E8X,C'P,3%.1\$!!0U,N14M5+D5\$  
M53X-"@T\*5&AA;FMS('10(&%L;"`M(&=0="!L:6YE<R!O;B!T:&4@<&QU9R!A  
M;F0@<V]C:V5T(' -O(&-A;B!G970-"G1H92!C<FET=&5R('5P(&%N9"!R=6YN  
M:6YG("T@979E;G1U86QL>2X-"@T\*("`@("!!;F0@;F\@;&]N9V5R(&YE960@  
M86YY(&UO<F4@:6YP=70@;VX@=&AE(#D@<&EN<R'M(&%G86EN+"!T:&%N:W,@  
M=&\@#0IA;&PN+BX-"@T\*("`@("`W,RP@(\$%L("!. -4%)5'T\*("!M;V1S=&5P  
M:\$!A8W,N96MU+F5D=0T\*#0H-"BTM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM  
M+2TM+0T\*#0I\$871E.B!4:'4L(#(Q(\$1E8R'Y-2'R,CHR,2!#4U0-"D9R;VTZ  
M(%1/32Y!+D%\$04U30&UA:6PN861M:6XN=VES8RYE9'4-"E10.B!B;V%T86YC  
M:&]R<R5T:&5P;W)C:"YC;VU`=FUS+FUA8V,N=VES8RYE9'4-"E-U8FIE8W0Z  
M(%-P>2!3:&EP(%)A9&EO(\$5Q=6EP;65N='T\*365S<V%G92U)1#H@/\$9#3\$TR  
M,3'Q+D9#3\$TR,3\$Q0&UA:6PN861M:6XN=VES8RYE9'4^#0H-"G10.B!B;V%T  
M86YC:&]R<T!T:&5P;W)C:"YC;VT-"@T\*2&5L;&\@36EC:&%E;"X-"@T\*("`@  
M3F]T(' -U<F4@=VAA="!W87,@=7-E9"!O;B!54U,@4'5E8FQ0(&9O<B!%3\$E.  
M5"!P=7)P;W-E<RP@8G5T(&EN(&AI<R!B;V]K#0IT:&4@0V%P=&%I;BP@0VUD  
M<BX@3&QO>60@0G5C:&5R+"!M861E(&\$@8V]U<&QE(&]F(')E9F5R96YC97,@  
M=&\@=&AE(&-O;6UU;BT-"FEC871I;VYS(&=E87(@=7-E9"!T;R!K965P(&-O  
M;G1A8W0@=VET:"!T:&EE<B!B87-E(&EN(\$IA<&%N+B!4:&4@<FEG(&EN('1H  
M870-"G-P;W0@=V%S('1H92!#;VQL:6YS(%520RTS,BP@<G5N;FEN9R!25%19  
M+@T\*#0H@("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@  
M("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@("`@  
M#0HM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM-"@T\*1&%T93H@5&AU  
M+"`R,2!\$96,@,3DY-2'Q.3HT,CHR,B'M,#@P,"`H4%-4\*0T\*1G)O;3H@2F%C  
M<75E;&EN92!(97)M86X@/&IH97)M86Y`<VEE<G)A+FYE=#X-"E10.B!287D@  
M1&5N;FES(#QC8FUB97-T0&EX+FYE=&-O;2YC;VT^#0I#8SH@375L=&EP;&4@  
M<F5C:7!I96YT<R!09B!L:7-T(#QB;V%T86YC:&]R<T!T:&5P;W)C:"YC;VT^  
M#0I3=6)J96-T.B!293H@36]R92!O;B'Q-C8P(\$MH>B!A8W1I=FET>0T\*365S  
M<V%G92U)1#H@/%!I;F4N4U5.+C,N.3\$N.34Q,C(Q,3DS.30Y+C\$P-#(V0BTQ  
M,#'P,#!'9&EA;6]N9#X-"@T\*66]U(&9O;&MS(&UI9VAT('=A;G0@=&\@8V]N  
M=&EN=64@=&AI<R!14T\@;W9E<B!O;B!R96,N<F%D:6\N8G)O861C87-T:6YG  
M#0IO<B!E=F5N(')E8RYR861I;RYS:&]R='=A=F4@\*&AI;G0@:&EN="\$I+@T\*  
M#0I\*969F(\$Y(-DE,7#<- "@T\*+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM  
M+2TM#0H-"D1A=&4Z(%1H=2P@,C\$@1&5C(#\$Y.34@,C,Z,#<Z,#4@+3'U,#'@  
M\*\$535"D-"D9R;VTZ(\$U/1%-415!(0\$%#4RY%2U4N1415#0I4;SH@8F]A=&%N  
M8VAO<G-'=&AE<&]R8V@N8V]M#0I3=6)J96-T.B'Y(%!I;B!O;'5G+U-08VME  
M='T\*365S<V%G92U)1#H@/#'Q2%HS-\$(P2E8X,C'P,3%.1\$!!0U,N14M5+D5\$  
M53X-"@T\*5&AA;FMS('10(&%L;"`M(&=0="!L:6YE<R!O;B!T:&4@<&QU9R!A  
M;F0@<V]C:V5T(' -O(&-A;B!G970-"G1H92!C<FET=&5R('5P(&%N9"!R=6YN  
M:6YG("T@979E;G1U86QL>2X-"@T\*("`@("!!;F0@;F\@;&]N9V5R(&YE960@  
M86YY(&UO<F4@:6YP=70@;VX@=&AE(#D@<&EN<R'M(&%G86EN+"!T:&%N:W,@  
M=&\@#0IA;&PN+BX-"@T\*("`@("`W,RP@(\$%L("!. -4%)5'T\*("!M;V1S=&5P  
M:\$!A8W,N96MU+F5D=0T\*#0H-"BTM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM  
M+2TM+0T\*#0I\$871E.B!4:'4L(#(Q(\$1E8R'Y-2'R,CHR,2!#4U0-"D9R;VTZ  
M(%1/32Y!+D%\$04U30&UA:6PN861M:6XN=VES8RYE9'4-"E10.B!B;V%T86YC  
M:&]R<R5T:&5P;W)C:"YC;VU`=FUS+FUA8V,N=VES8RYE9'4-"E-U8FIE8W0Z  
M(%-P>2!3:&EP(%)A9&EO(\$5Q=6EP;65N='T\*365S<V%G92U)1#H@/\$9#3\$TR  
M,3'Q+D9#3\$TR,3\$Q0&UA:6PN861M:6XN=VES8RYE9'4^#0H-"G10.B!B;V%T  
M86YC:&]R<T!T:&5P;W)C:"YC;VT-"@T\*2&5L;&\@36EC:&%E;"X-"@T\*("`@  
M3F]T(' -U<F4@=VAA="!W87,@=7-E9"!O;B!54U,@4'5E8FQ0(&9O<B!%3\$E.  
M5"!P=7)P;W-E<RP@8G5T(&EN(&AI<R!B;V]K#0IT:&4@0V%P=&%I;BP@0VUD  
M<BX@3&QO>60@0G5C:&5R+"!M861E(&\$@8V]U<&QE(&]F(')E9F5R96YC97,@  
M=&\@=&AE(&-O;6UU;BT-"FEC871I;VYS(&=E87(@=7-E9"!T;R!K965P(&-O  
M;G1A8W0@=VET:"!T:&EE<B!B87-E(&EN(\$IA

M"E10.B!497)R>2!="=7)G92`\'=&5R<GEB=4!N971M86XN14Y3+E1%2RY#3TT^  
M#0I3=6)J96-T.B!293H@96UA:6P@861D<F5S<R!09B!!4E),#0I-97-S86=E  
M+4E\$.B`\'4&EN92Y354XN,RXY,2XY-3\$R,C\$R,S,S,#4N,C0U.\$\$M,3`P,#`P  
M0&)0;WHN8F%H+F-0;3X-"@T\*5&5R<GD@+2T-"@T\*3VX@5&AU+"`R,2!\$96,@  
M,3DY-2P@5&5R<GD@0G5R9V4@=W)0=&4Z#0H^(\$%N>6]N92!K;F]W('1H92!I  
M;G1E<FYE="!A9&1R97-S(&]F('1H92!!4E),+B!!(&9R:65N9"!09B!M:6YE  
M(&9A>&5D(&EN#0H^(&\$@<W5B<V-R:7!T:6]N(&90<B!M92!B=70@9V%V92!T  
M:&4@;VQD(&%D9')E<W,@:6YS=&5A9"!09B!T:&4@;F5W#0H-"D%8V]R9&EN  
M9R!T;R!M>2!L:7-T(&]F(&5M86EL(&%D9')E<W-E<R!F;W(@3F5W:6YG=&]N  
M+"!+.\$.-((&ES#0IS=7!P;W-E9&QY('1H92!S=7!E<G9I<V]R(&]F(&UE;6)E  
M<G-H:7`N("!( (:7,@96UA:6P@:7,@8VAU=&-H0&%R<FPN;W)G+@T\*=&AE>2!A  
M;' -O(&%P<&%R96YT;'D@86AV92!A;&EA<V5S(&%G86EN<W0@=&AE:7(@8V%L  
M;' -I9VYS('1H97)E+"!S;R!Y;W4-"F-A;B!A;' -O('5S92!K.&-H0&%R<FPN  
M;W)G+@T\*#0H@(" @:F0-"@T\*#0HM+2TM+2TM+2TM+2TM+2TM+2TM+2TM  
M+2TM+2T-"@T\*1&%T93H@1G)I+"`R,B!\$96,@,3DY-2`P,#HP.#HQ,B`M,#4P  
M,`T\*1G)0;3H@<W1E=F5R0&-Y8F5R8V]M;2YN970@\*%-T97!H86X@4F%S:&MI  
M;BD-"E10.B!B;V%T86YC:&]R<T!T:&5P;W)C:"YC;VT-"E-U8FIE8W0Z(%=4  
M0BXN+DIO:&YS;VX@5D8M,3(R#0I-97-S86=E+4E\$.B`\' ,3DY-3\$R,C(P-3`X  
M+D%!03\$W,#@W0')A=F5N+F-Y8F5R8V]M;2YN970^#0H-"E-T:6QL(&Q0;VMI  
M;F<@9F]R(&\$@2F]H;G-0;B!61BTQ,C(@:6X@9V]09"!S:&%P92!A;F0@;F\@  
M;6]D<R!T;R!U<V4-"G=I=&@@;7D@061V96YT=7)E<BXN4&QE87-E(&QE="!M  
M92!K;F]W(&5V96X@:68@>6]U(&AA=F4@;VYE(&90<B!S86QE#0IE=F5N(&EF  
M(&EN(&9A:7(@<VAA<&4N+@T\*#0I0;&5A<V4@12UM86EL.@T\*<W1E=F5R0')A  
M=F5N+F-Y8F5R8V]M+F-0;0T\*#0I4:&%N:W,L(`T\*4W1E=F4L(%=! ,DY(6@T\*  
M#0H-"BTM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+0T\*#0I\$871E.B!&  
M<FDL(#(R(\$1E8R`Y-2`P,3HS,#HT-2!01%0-"D9R;VTZ(&%R=&AE<BYD96YT  
M0'-M='`N<')O<W1A<BYC;VT-"E10.B!B;V%T86YC:&]R<T!T:&5P;W)C:"YC  
M;VT-"E-U8FIE8W0Z(&UA;GD@=&AA;FMS#0I-97-S86=E+4E\$.B`\' ,3DY-3\$R  
M,C(P.3`W+D1!03(V-C@V0'5R;RYT:&5P;W)C:"YC;VT^#0H-"FUA;GD@=&AA  
M;FMS('10(&%L;"!09B!Y;W4@0D\$G<R!T:&%T(&Q0;VME9"!T:')O=6=H('EO  
M=7(@:G5N:R!B;WAS(&Q0;VMI;F<@#0IF;W(@=&AA="`V4T(W62X@:2!F:6YA  
M;&QY(&90=6YD(&]N92X@=VAE;B!I('!U="!I="!I;B!I(&90=6YD(&D@<W1I  
M;&P@:&%D(`T\*;F\@<F5C:65V92X@<V\@:2!D:60@<V]M92!C:&5C:VEN9R!A  
M;F0@9F]U;F0@=&AA="!W:&5N(&D@9F]R9V]T(&%N9"!L969T(`T\*=&AE(\$Y#  
M+34W(&]N(&90<B!T:')E92!D87ES+"!N;W0@;VYL>2!D:60@:70@=&%K92!O  
M=70@=&AE('1U8F4@:70@86QS;R`-"F-0;VME9"!A;&P@=&AE('!A<&5R(&-A  
M<' ,N(' -O(&%F=&5R(')E<&QA8VEN9R!A;&P@=&AE('!A<&5R(&%N9"!E;&5C  
M=')O;&ET:6,-"F-A<' ,L(&%N9"!T:&4@-E-"-UD@\*`5S960@82`V4T\$W62DL  
M('1H92!O;&0@9VER;"!S;W5N9',@9W)E870N(`T\*#0I"5%<@9F]R(&\$@8V]U  
M<&QE(&]09B!Y;W4@=VAO(&UE;G1I;VYE9"!T:&%T('1H96ER(\$Y#+34W)W,@  
M:&%D(&)A9"!R8W8N(&]N(`T\*=&AE(&AI9VAE<B!B86YD<RXN+BXN:2!M:6=H  
M="!S=6=G97-T(&E='1I;F<@<FED(&]F('1H;W-E('!A<&5R(&-A<' ,N(&D@  
M;F]W(`T\*:&%V92!E>&-E;&QE;G0@<F5C:65V92!O;B!A;&P@8F%N9',@9G)O  
M;2`U,#!K8R=S(&%L;"!T:&4@=V%Y('5P('10(#4T;6AZ+@T\*:2!H860@86QM  
M;W-T(&90<F=O='1E;B!H;W<@;FEC92!T:&4@875D:6\@=V%S(&]N('1H92!O  
M;&0@<FEG+BXN+BXN+@T\*-S,N+BXN+FUI:V4N+BXN+DM"-U9.5"XN+BXN+BXN  
M+BXN+BXN+BXN#0H-"FD@=')A;G-M:70@=&AE<F5F;W)E(&D@86TN+BXN+BXN  
M+BXN+@T\*#0H-"@T\*+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM#0H-

M"D1A=&4Z(#(R(\$1E8R`Y-2`P-3HQ-#HT,2!%4U0-"D9R;VTZ(\$)I;&P@365A  
M<F\$@/#<T-3,W+C\$Q,#!`8V]M<'5S97)V92YC;VT^#0I4;SH@;75L=&EP;&4@  
M<F5C:7!I96YT<R`\8F]A=&%N8VA0<G-`=&AE<&]R8V@N8V]M/@T\*4W5B:F5C  
M=#H@0D\$@0F]O:PT\*365S<V%G92U)1#H@/#DU,3(R,C\$P,30T,%\W-#4S-RXQ  
M,3`P7T5(2#0W+3%`0V]M<'5397)V92Y#3TT^#0H-"D1I<W1I;F=U:610<R!!  
M;F-H;W)O;&]G;W,@\*\$AE>2P@22=M(&EN('1H92!\$;VUI;FEC86X@4F5P=6)L  
M:6,N+BXI(`T\*#0I)(&QI:V5D(\$I092!#87)R)W,@8F]O:R`B3VQD(%1I;64@  
M4F%D:6]S("T@4F5S=&]R871I;VX@86YD(%)E<&%I<B(N("!)="!I<PT\*;W)I  
M96YT960@=&]W87)D(&]L9"!B<F]A9&-A<W0@8F%N9"!R861I;W,L(&)U="!T  
M:&5R92!I<R!A(&Q0="!09B!I;F90('5S969U;"!F;W(-"FY0=FEC92UI;G1E  
M<FUE9&EA=&4@;&5V96P@:&%M(\$)!W,N("!\*;V4@:&%S(&\$@=&%L96YT(&90  
M<B!M86MI;F<@=&AE('1H96]R>2!V97)Y#0IE87-Y('10('5N9&5R<W1A;F0N  
M("`@2&ES(&1I<V-U<W-I;VX@;V8@=')0=6)L97-H;V]T:6YG('1E8VAN:7%U  
M97,@=V%S('9E<GD-"FAE;"!F=6P@87,@=V%S(&AI<R!R=6YD;W=N(&]N('!R  
M;V)L96US(&-O;6UO;B!T;R!H;VQL;W<@<W1A=&4@8VER8W5I=' ,N("`@36EN  
M90T\*=&V%S(&EN('!A<&5R8F%C:RP@,38N.34@9G)O;2!486(@0F]O:W,L(\$)L  
M=64@4FED9V4@4W5M;6ET(%!!(#\$W,CDT+3`X-3`@(`T\*#0I-97)R>2!#:' )I  
M<W1M87,@=&\@86QL(2`@("`@("`- "@T\*-S,A("!" :6QL("!. ,D-14B](23@-  
M"E-A;G10(\$10;6EN9V\L(\$10;6EN:6-A;B!297!U8FQI8R`-"E)U;FYI;F<Z  
M(\$A4+3,W+"`R+4(L(\$A7+3\$P,2P@2%\$M,3`P("AW:71H(%-0+38P,`T\*86YD  
M(%-8+30S(&%W86ET:6YG(')E<&%I<G,I#0H-"@T\*+2TM+2TM+2TM+2TM+2TM  
M+2TM+2TM+2TM+2TM+2TM#0H-"D1A=&4Z(\$9R:2P@,C(@1&5C(#\$Y.34@,#8Z  
M,C(Z,3D@+3`U,#`@\*\$535"D-"D9R;VTZ(%!E=&5R(\$9E<G)A;F0@/'!F97)R  
M86YD0`-C;V]T+FYE=&ES+F-O;3X-"E10.B!O<FYI='I`96%S=&UA;BYC;VTL  
M(&)O871A;F-H;W)S0`1H97!O<F-H+F-O;0T\*4W5B:F5C=#H@4F4Z(\$Y08F%T  
M<F]N<PT\*365S<V%G92U)1#H@/#\$Y.34Q,C(R,3\$R,BY'04\$P.34Y-D!S8V]O  
M="YN971I<RYC;VT^#0H-"@T\*#0I!:"P@0F%R<GDN+BYT:&%N:W,@86YD('EO  
M=2!A<F4@<W!O="!O;BX@22P@;&EK92!M86YY(&]T:&5R<R!H97)E+"!H879E  
M#0IL;VYG(&%P<')E8VEA=&5D('EO=7(@:6YS:6=H="!I;G10('9A<FE0=7,@  
M;6%T=&5R<R!A;F0@22!A;2!V97)Y(&=R871E9G5L+@T\*#0I4:&4@42!. ;V)A  
M=')O;B!I;B!Q=65S=&EO;B!I<R!A(%%20S(P+3,P02X@22!S=7-P96-T('1H  
M97D@=V5R92`-"F%L;"!S:6UI;&%R(&EF(&UA9&4@:6X@=&AE(' -A;64@97!O  
M8V@N#0H-"E1H92!U;FET(&ES(&EN9&5E9"!A(&AY8G)I9"!D97-I9VXL(&%L  
M=&A0=6=H(\$D@=V]U;&0@:&5S:71A=&4@=&\@<V%Y#0IS=VET8VAE<B!S:6YC  
M92!)(&10=6)T(&ET(')E<V5M8FQE<R!W:&%T(&UO<W0@9F]L:W,@8V%L;"!S  
M=VET8VAE<G,L#0IN;W<L('=H870@,S`@;W(@;6]R92!Y96%R<R!L871E<BX@  
M06YD(&%S(&\$@,C`@=F]L="!V87)I86)L92!S=7!P;'DL#0IT:&4@=F5R>2!L  
M87)G92!P;W=E<B!P;W=E<B!X9G)M<B!P=71S(&]U="`S,2!V86,L(&IU<W0@  
M87,@>6]U(&EN9&EC871E+@T\*#0I)(&1I9"!N;W0L(&]F(&-O=7)S92P@<F5A  
M;&EZ92!T:&4@;W-C:6QL8710<B!P87)T('=H96X@22!P:6-K960@=&AE#0IT  
M:&EN9R!U<"!B=70@:70@<V5E;7,@=&]T86QL>2!Q=6EE="!O;B!T:&4@:&8@  
M8F%N9` ,@8G5T('1E87)S('5P#0IL9B!A;F0@;7D@5%8@<V5T(' %U:71E(&EM  
M<' )E<W-I=F5L>2X@4VEN8V4@22=L;"!B92!U<VEN9R!T:&ES(&]N(&AF#0I)  
M(&%M(&=0:6YG(&%H96%D(&90<B!T:&4@;6]M96YT+@T\*#0I)(&1I9"!C;VYS  
M:61E<B!T:&4@8F%T=&5R>2!A;'1E<FYA=&EV92!W:71H(&%N;W1H97(@<W5P  
M<&QY('1H870@:7,-"G5N<F5G=6QA=&5D+B! (;W=E=F5R+"!S:6YC92!T:&ES  
M(&ES(&%P="!T;R!B92!U<V5D(&EN9G)E<75E;G1L>2P@86YD#0I)(&YE960@  
M97AA8W1L>2`R-B!V;VQT<RP@86YD(\$DG9"!H879E('10('!R;W9I9&4@82!L

M;V%D(&1I<V-0;FYE8W0-"G10('!R979E;G0@9')A=VEN9R!D;W=N('1H92!B  
M871T97)I97,L(&ET(' -E96US(&\$@;&]T(&]F('1R;W5B;&4@86YD#0IM86EN  
M=&5N86YC92X-"@T\*5&AE(%-0<F5N<V]N(')E9W5L871E<R!P97)F96-T;'D@  
M+2!))VT@=7-I;F<@;6%Y8F4@:&%L9B!I="=S(&-U<G)E;G0-"F-A<&%C:71Y  
M(&%N9"!E=F5N('5N9&5R('90:6-E('!E86L@;&]A9"!09B!A;B!!32!R:6<@  
M04Y\$(&9A:VEN9R!T:&4-"G!R;V=R86UM:6YG(')E<VES=&]R<R!T;R!G970@  
M,C8@=F]L=',@;W5T(&]F(&\$@,C`@=F]L="!S=7!P;'DL(\$D@#0IM96%S=7)E  
M(&QE<W,@=&AA;B`N,2!V;VQT(&9L=6-T=6%T:6]N+"!A;F0@<F5A;"!L;W<@  
M<FEP<&QE+@T\*#0I"=70@:70@=&%L:W,@8F%C:R!T;R!M92!A;F0@8V%U<V5S  
M(&9E961B86-K('1H<G4@=&AE(&UI:V408V]M<')E<W-O<BX-"EEE86@082!C  
M87)D:6]D(&UI:V4@:&5L<' ,@8G5T(&ET)W,@<F5A;"!A;FYO>6EN9RX@22!J  
M=7-T(&-A;B=T(&9I;F0-"G=H870@:70@:7,@=&AA="=S(&%C=&EN9R!A<R!A  
M('90:6-E(&-O:6P@;W(@<&EE>F\@96QE;65N="P@979E;B!W:71H#0IA(&AO  
M;&QO=R!T=6)E(&EN(&UY(&5A<BX@5VAE;B!T:&4@8W5R<F5N="!D<F%W(&-H  
M86YG97,@<V]M971H:6YG#0IV:6)R871E<R!I;G10('1H92!A:7(@+2!))VT@  
M;F]T('1A;&MI;F<@86)O=70@=&AE(&]S8VEL;&%T;W(@=VAI;F4L#0IW:&EC  
M:"!I<VXG="!T;V\@8F%D(&%N9"!W:6QL(&1R;W`@;6]R92!A<R!)(&=E="!O  
M;&1E<B`Z+2D-"@T\*#0I)('=0=6QD(&%P<')E8VEA=&4@82!C;W!Y(&]F('1H  
M92!M86YU86P0<V-H96UA=&EC(&%N9"!))VQL('!A>0T\*86YY(&-O<W1S(&]R  
M(&-O<'D@:70@;7ES96QF(&]R('=H871E=F5R('EO=2=D(&QI:V4N(\$D@=&AI  
M;FL@>6]U)W)E#0IP<F]B86)L>2!R:6=H="!A8F]U="!T:&4@8G)O=VX@;V)J  
M96-T(&)E:6YG(&%N(&5N97)G>2!S=&]R86=E(&-H;VME+`T\*86QT:&\@22=M  
M(&YO="!R96%L(&9A;6EL:6%R('=I=&@=&AI<R!T96-H;F]L;V=Y+B`@22!D  
M;W5B="!T:&4@#0IS8VAE;6%T:6,@=VEL;"!H96QP(&UE(&9I;F0@=&AE(&YO  
M:7-E+"!B=70@:68@22!E=F5R('=A;G0@=&\@9FEX(&ET+`T\*=V5L;"P@>6]U  
M(&-A;B=T(&9I>"!T:&5S92!T:&EN9W,@=VET:"!A(' -I9VYA;"!T<F%C97(@  
M86YD(&\$@9&EP(&UE=&5R(2`@('T\*#0H-"DAE<F4G<R!M>2!F=6QL(&%D9')E  
M<W,@=VAI;&4@22=M('1H:6YK:6YG(&]F(&ET.@T\*#0I0971E(\$9E<G)A;F0L  
M(%=" ,E%,3`T\*-C4@071H97)T;VX@079E;G5E#0I.87-H=6\$L(\$Y((#`S,#8P  
M+3\$Y,#0-"@T\*-S,L#0HM4`T\*#0H-"BTM+2TM+2TM+2TM+2TM+2TM+2TM+2TM  
M+2TM+2TM+0T\*#0I\$871E.B!&<FDL(#(R(\$1E8R`Y-2`P-SHT-SHP,"!%4U0-  
M"D9R;VTZ(")#87)C:6\$L(\$I092P@(\$Y\*,5\$B(#QJ8V%R8VEA0&%R<FPN;W)G  
M/@T\*5&\Z(\$UU;'1I<&QE(')E8VEP:65N=' ,@;V8@;&ES="`\8F]A=&%N8VAO  
M<G-`=&AE<&]R8V@N8V]M/BP-"E-U8FIE8W0Z(%).B!E;6%I;"!A9&1R97-S  
M(&]F(\$%24DP-"DUE<W-A9V4M240Z(#PS,\$1!03E!-D!A<G)L+F]R9SX-"@T\*  
M#0I\$96%R(%1E<G)Y.@T\*#0I4:&5R92!A<F4@82!F97<@05)23"!E;6%I;"!A  
M9&1R97-S97,@>6]U(&-A;B!U<V4@\*&1E<&5N9&EN9R!O;B!W:&%T('EO=2`-  
M"FYE960I+B`@5&AE>2!A<F4Z#0H-"D90<B!14U0@9&5L:79E<GDZ("`@("`@  
M("!C:7)C=6QA=&EO;D!A<G)L+F]R9PT\*0F]O:R!O<F1E<G,Z("`@("`@("!P  
M=6)S86QE<T!A<G)L+F]R9PT\*161U8V%T:6]N86P@36%T97)I86QS.B`@(&5A  
M9\$!A<G)L+F]R9PT\*1%A#0SH@("`@("`@("`@("`@("!D>&-C0&%R<FPN;W)G  
M#0I14TP@4V5R=FEC93H@("`@("`@(&)U<F]`87)R;"YO<F<-"E-C:&]L87)S  
M:&EP<SH@("`@("`@9F]U;F1A=&EO;D!A<G)L+F]R9PT\*#0I)9B!Y;W4G<F4@  
M=6YS=7)E(&%B;W5T('=H:6-H('!A<G1I8W5L87(@9&5P87)T;65N="!Y;W4@  
M;F5E9"P@>6]U(&-A;B!S96YD(`T\*>6]U<B!R97%U97-T('10.@T\*#0H@("`@  
M("`@("`@("`@("`@("!H<4!A<G)L+F]R9PT\*#0I4:&4@4&]S=&UA<W1E<B!W:6QL  
M(&90<G=A<F0@>6]U<B!R97%U97-T\* ,I(&]N=&\@=&AE(&-O<G)E8W0@9&5P  
M87)T;65N="X-"@T\*22!H;W!E('1H:7,@:&5L<' ,A#0H-"C<S+`T\*#0I\* ;V4L

[illegible]

2+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2T - "@T\*1&%T93H@1G)I+"`R  
M,B!\$96,@.34@,#8Z,S\$@4%-4#0I<F]M.B!J;6Q`<W!I9&5R+FQL;WED+F-O  
M;2`H2FEM(\$Q08VMW;V]D\*0T\*5&\Z(&)0871A;F-H;W)S0%1H95!O<F-H+F-O  
M;0T\*4W5B:F5C=#H@16Y0=6=H(&]F('1H92`Q-C8P(&1I<V-U<W-I;VYS#0I-  
M97-S86=E+4E\$.B`\;3!T5#A652TP,#!4<E1#0'-P:61E<BYL;&]Y9"YC;VT^  
M#f0H-"E1H92`Q-C8P(\$MC(&)R;V%D8V\$S="!D:7-C=7-S:6]N<R!D;VXG="!B  
M96Q0;F<@:&5R92X@('T\*#f0I4:&5R92!I<R!A;&U0<W0@8V5R=&%I;FQY(&%N  
M(&%P<')O<')I871E('5S96YE="!N97=S(&=R;W5P('=H97)E('1H97D@8V]U  
M;&0-"F)E(&-O;G1I;G5E9"!A9"!N875S975M+"!H;W=E=F5R+"!A;F0@=&A  
M>2!S:&]U;&0@8F4@;6]V960@=&@=&AA="!F;W)U;2X-"@T\*-S,L#0H-"DII  
M;2`M(&MM-FYK#f0H-"@T\*+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM  
M#f0H-"D1A=&4Z("@"("@"@1G)I+"`R,B!\$96,@,3DY-2`P.3HU.3HQ,"!%  
M4U0-"D9R;VTZ(")\*86-K(\$=I96AL(B`@/\$I!0TM'0',Q+GAE=')O;BYC;VT^  
M#f0I4;SH@8F]A=&%N8VA0<G-`= &AE<]&R8V@N8V]M#f0I3=6)J96-T.B!6:6YT  
M86=E(%-30B!4;VYI9VAT#f0I-97-S86=E+4E\$.B`\-3`U-#5&.#(S1#!`<S\$N  
M>&5T<F]N+F-O;3X-"@T\*1&5A<B!"02!%;G1H=7-I87-T<RP-"@T\*22!W:6QL  
M(&)E(&]N('1H92!A:7(@,3`Z,#`@4\$T@16%S=&5R;B!T;VYI9VAT(&]N(#,X  
M.3\$@2T,@(\$Q30B!W:71H#f0IT:&4@ (D=0;&0@1`5S="!4=VEN<R(L('1H92!#  
M;VQL:6YS(\$M74RTQ(&%N9" `W-4\$M-"!C;VUB:6YA=&EO;@T\*;6%D92!I;B!T  
M:&4@;6ED(#4P)W,N("!4:&4@-S4@;65T97(@8F%N9" @8V]N9&ET:6]N<R!H  
M879E(&)E96X@#f0IU;G-T86)L92!L871E;'DL(&)U="!T:&4@;&%S="!F97<@  
M;FEG:`1S(&AA=F4@8F5E;B!G;V]D+@T\*#f0I!;GD@=FEN=&%G92!34T(@<W1A  
M=&EO;B!O<B!E;G1H=7-I87-T(&ES('=E;&-O;64@=&@&@:F]I;B!I;BX-"D=E  
M="!T:&%T(&]L9"! (86QL:6-R869T97(L(\$AE871H+"!\$<F%K92P@971C+B!F  
M:7)E9"!A;F0@=&%K92!T:&4-"F-H:6QL(&)U="!09B!T:&4@86ER('=I=&@@  
M=&AE('=A<FT@9VQ0=R!09B!V86-U=6T@='5B97,N#f0H-"E!3+B`@1&]N)W0@  
M=')Y('10('5S92!!32!T;R!C:&5C:R!I;BX@(%1H97)E(&%R92!S;VUE(&QU  
M;F%T:6-S#f0IO<&5R871I;F<@;VX@,S@Y-"XU(\$M#+"!A;F0@04T@;W!E<F%T  
M:6]N(&]N(#,X.3\$@2T,@:7,@<W5R92!T;PT\*9V5T('1H96T@<W1I<G)E9"!U  
M<"X-"@T\*2F%C:RP@5T(X0D93#f0H-"C<S+`T\*/3T]/3T]/3T]/3T]/3T]/3T]  
M/3T]/3T]/3T]/3T]/3T]/3T]/3T]/3T]/3T]/3T]/3T]/3T]/3T]/3T]/3T]/3T]-  
"DIA8VLL(%=".\$)&4PT\*  
M:F%C:V='>&5T<F]N+F-O;2`@("@"@3&]V96QA;F0L(\$)H:6@\*&YE87(@0VEN  
M8VEN;F%T:2D-"CT]/3T]/3T]/3T]/3T]/3T]/3T]/3T]/3T]/3T]/3T]/3T]/3T]  
M/3T]/3T]/3T]/3T]/3T]/3T]/3T]/3T]/3T]/3T]/3T]/3T]/3T]/3T]/3T]/3T]-  
"BTM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM  
M+0T\*#f0I\$871E.B`R,B!\$96,@.34@,3`Z,#<Z-#<@15-4#0I<F]M.B!`97)N  
M:64@4VM08V@@/#<U,S<V+C\$R0&-O;7!U<V5R=F4N8V]M/@T\*5&\Z(#QB;V%T  
M86YC:&]R<T!T:&5P;W)C:"YC;VT^#f0I3=6)J96-T.B!\$<F%K92!4=6YE<BU5  
M<'!E<C\`#f0I-97-S86=E+4E\$.B`\ .34Q,C(R,34P-S0V7S<U,S<V+C\$R7T-(  
M4C4U+3%`0V]M<'5397)V92Y#3TT^#f0H-"D)/051!3D-(3U)30%1(15!/4D-(  
M+D-/30T\*#f0I)(&AA=F4@82!\$<F%K92!4-%@=&AA="!I<R!G971T:6YG(&1I  
M<W10<G1E9"!A=61I;R!R97!R=' ,N("!)V0@;&EK90T\*=&\@9V5T(&ET('1W  
M96%K960@=7`N("!#86X@86YY;VYE(')E8V]M;65N9"!A(&=0;V0@1`)A:V4@  
M<&5R<V]N/PT\*4VA0=6QD(\$D@<VAI<"!I="!B86-K('10(\$UI86UI<V)U<F<@  
M\*`=0=6QD(\$1R86ME(&5V96X@;&]O:R!A="!I=#\I/PT\*#f0I4:&%N:W,@9F]R  
M(&%N>2!A9`9I8V4N#f0H-"F)E<FYI92!S:V]C:`T\*-S4S-S8N,3)`0V]M<'5S  
M97)V92YC;VT-"@T\*#f0HM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2T-  
M"@T\*1&%T93H@1G)I+"`R,B!\$96,@,3DY-2`Q,3HR,SHP,"`M,#4P,`T\*1G)O  
M;3H@<G-O;&]M;VY`=&5X=')O;BYC;VT@\*\$1I8VL@4V]L;VU0;BD-"E10.B!B

M;V%T86YC:&]R<T!T:&5P;W)C:"YC;VT-"E-U8FIE8W0Z(\$UE;7!H:7,@0F5L  
M;`T\*365S<V%G92U)1#H@/#DU,3(R,C\$V,3DN04\$R,#\$S-4!T97AT<F]N+F-O  
M;3X-"@T\*("@"@("!)9B!Y;W4@<V%W('1H92!M861E(&90<B!45B!M;W9I  
M92!R93H@5&AE(\$UE;7!H:7,@0F5L;"P@:70@:&%D#0IE;F]U9V@@;6EN="!"  
M02=S('10(&UA:V4@82!S86YE(&UA;B!D<F]0;"\$A#0H@("@"@("\$AA<'!Y  
M(&AO;&ED87ES(&1E(\$1I8VLL(%<Q2U-:#0H-"@T\*+2TM+2TM+2TM+2TM+2TM  
M+2TM+2TM+2TM+2TM+2TM#0H-"D1A=&4Z(\$9R:2P@,C(@1&5C(#\$Y.34@,3`Z  
M,C\$Z,3`@+3`V,#`-"D9R;VTZ(&IM:6QL97)`=&5L971E86TN8V]M("A\*87D@  
M2"X@36EL;&5R\*0T\*5&Z(&)0871A;F-H;W)S0'1H97!O<F-H+F-O;0T\*4W5B  
M:F5C=#H@36]R92!293H@5FEN=&%G92!34T(@5&]N:6=H=`T\*365S<V%G92U)  
M1#H@/'8P,34Q,#\$P,6%D,#`S-S)D-S0X-\$!;;C`U+C\$Y."XQ,3`N,31=/@T\*  
M#0I\*86-K+0T\*#0HS.#DQ(&MC(&ES(&\$@8FET('10;R!H:6=H(&EN(&9R97%U  
M96YC>2!F;W(@;64@=VET:"!M>2!S:'5N="UF960@=F5R=&EC86P-"F)U="!)  
M('=I;&P@8F4@=&AE<F4@;&ES=&5N:6YG('=I=&@@;75C:"!T:&4@<V%M92!E  
M<75I<&UE;G0N#0H-"E1H92!#;VQL:6YS(&=U>7,@;65E="!E86-H(%1U97-D  
M87D@86YD(%1H=7)S9&%Y(&YI9VAT<R!A="`S.#`U(&%R;W5N9"`W.C`P#0I#  
M4U0N("!!;&P@87)E('=E;&-0;64@=&AE<F4@=&]0(0T\*#0H-"BHJ\*BHJ\*BHJ  
M\*BHJ\*BHJ\*BHJ\*BHJ\*BHJ\*BH-"DIA>2!-:6QL97(L(\$M+-4E-#0I;6EL;&5R  
M0'1E;&5T96%M+F-O;0T\*BHJ\*BHJ\*BHJ\*BHJ\*BHJ\*BHJ\*BHJ\*BHJ\*BHJ\*BHJ\*BHJ\*  
M"@T\*+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM#0H-"D1A=&4Z(\$9R  
M:2P@,C(@1&5C(#\$Y.34@,#DZ,38Z,3<@4%-4#0I<&F]M.B!497)R>2!"=7)G  
M92`\`=&5R<GEB=4!N971M86XN14Y3+E1%2RY#3TT^#0I4;SH@8F]A=&%N8VAO  
M<G-`=&AE<&]R8V@N0T]-#0I#8SH@=&5R<GEB=4!N971M86XN5\$5++D-/30T\*  
M4W5B:F5C=#H@96UA:6P@861D<F5S<R!09B!!4E),#0I-97-S86=E+4E\$.B`\  
M.34Q,C(R,3<Q-BY!03(T-C,Q0&YE=&UA;BY%3E,N5\$5++D-/33X-"@T\*5&AA  
M;FMS('10(&5V97)Y;VYE('=H;R!T;V]K('1H92!T:6UE('10('=R:71E(&%N  
M9"!G:79E(&UE('1H92!I;F90<FUA=&EO;@T\*22!R97%U97-T960N('T\*#0I4  
M97)R>0T\*2TDW30T\*#0H-"BTM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM  
M+0T\*#0I\$871E.B!&<FDL(#(R(\$1E8R`Q.3DU(#\$Q.C(V.C0T("TP.#`P#0I&  
M<F]M.B!M:G-I;'9A0&EX+FYE=&-0;2YC;VT@\*&UI8VAA96P@<VEL=F\$I#0I4  
M;SH@9VQ0=V)U9W-`=&AE<&]R8V@N8V]M#0I3=6)J96-T.B`S,"!C96YT(#9!  
M1S=S("AW:71H(&\$@8V%T8V@N+BXI#0I-97-S86=E+4E\$.B`\,3DY-3\$R,C(Q  
M.3(V+DQ!03`W-C8R0&EX,3\$N:7@N;F5T8V]M+F-O;3X-"@T\*2&D@86QL+`T\*  
M#0I)('=A<R!T:'5M8FEN9R!T:')U(&\$@8V]P>2!09B`B1VQA<W,@075D:6\B  
M(&QO;VMI;F<@870@=&AE(&%D<RP@86YD(\$D@#0IS87<@82!P;&%C92!C86QL  
M960@3F5W(%-E;G-O<B!S96QL:6YG(\$Y/4R!A;F0@4G5S<VEA;B!T=6)E<RX@  
M(%1H97D@:&%D('T\*<V]M92!G;V]D('!R:6-E<RP@8G5T('=H870@<F5A;&QY  
M(&-A=6=H="!M>2!E>64@=V%S(\$Y/4R!\*86X@-D%'-UES(&90<B`-"C,P(&-E  
M;G1S(&5A8V@N("!)(&-A;&QE9"!A;F0@:70G<R!L96=I="X@(%1H92!C871C  
M:"!I<R!A("0V,"!M:6YI;75M(`T\*;W)D97(N("!))VT@<&%S<VEN9R!T:&ES  
M(&EN9F\@86Q0;F<@<VAO=6QD(&%N>6)09'D@=V%N="!T;R!S970@=7`@82`-  
M"F=R;W5P(&)U>2!O<B!S;VUE<W5C:"X@(%1H97)E(&UA>2!B92!S;VUE(&]T  
M:&5R(&=0;V0@8G5Y<R!I;B!T:&4@860@87,@#0IW96QL("TM(\$DG;2!N;W0@  
M=&AA="!F86UI;&EA<B!W:71H(' -0;64@;V8@=&AE('1U8F5S(&QI<W1E9"X@  
M(%=H:6QE(\$D@#0ID;VXG="!N965D(&%N>2!09B!T:&5S92!T=6)E<RP@22!T  
M:&]U9VAT(&%T('1H:7,@<')I8V4@=&AE<F4@;6EG:'0@8F4@#0IS;VUE(&EN  
M=&5R97-T+@T\*#0I/:`!Y96%H+"!T:&4@;G5M8F5R.B`@3F5W(%-E;G-O<B!#  
M;W)P+B`@.#`P+38S,RTU-#<W#0H-"C<S+`T\*36EK92P@2TLV1TT-"@T\*#0HM



2+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2TM+2T- "@T\*1&%T93H@1G)I+"`R M, B!\$96, @.34@, 3DZ, CDZ-3\$@551#H0I<F]M.B!N-6]F9D!W-61D; "YA87)A M+F]R9PT\*5&\Z(&)O871A;F-H;W)S0`1H97!O<F-H+F-O;0T\*4W5B:F5C=#H@ M365M<&AI<R!"96QL90T\*365S<V%G92U)1#H@/#(U-S,R,D!W-61D; "YA87)A M+F]R9SX-"@T\*22!S87<@34(@;&%S="!N:6=H="P@8G5T(&1I9&XG="!S964@ M86YY(&UI;G0@0D\$G<RP@8G5T('!L96YT>2!09B!"02=S(&%N>7=A>2X-"@T\* M1V]09"!S:&]T<R!09B!C;VUM86YD(')I9W,@86YD(&\$@0D,M,S0X("AE87)L M>2DN("!!;&P@<VAO=V5D('=E87(@87,@=&AE>0T\*<VAO=6QD(&%F=&5R(#(U M(&UI<W-I;VYS(\$D@9W5E<W,N#0H-"E=H96X@ (DUO=&AE<B!A;F0@0V]U;G1R M>2(@8V]L;&ED960@=VET:"!T:&4@1V5R;6%N(&9I9VAT97(L('1H92!-0B`- M"G)A9&EO(&]P('!U="!O=70@82!C86QL('10('1H96TN("!(92!G;W1S(&\$@ M9F5W(' -C<F5A;7,@;VX@=F]I8V4L('T\*=&AE;B!A(#\$R,"!L:6YE('!E<B!M M:6YU=&4@1D%8(' -I9VYA;"P@=&AE;B!A(\$L@:6X@0U<N#0H-"DA-34TL(&AO M=R!D:60@=&AA="!" +3\$W(' -E;F0@82!&05@\_#0H-"C<S(&1E(%10;2!.-4]& M1B!-97)R>2!8;6%S('10(\$%L;`T\*#0HM+2TM+2TM+2TM+2TM+2TM+2TM+2TM M+2TM+2TM+2T-"@T\*1&%T93H@1G)I+"`R M, B!\$96, @.3DY-2`Q-#HS,CHT,2`M M,#4P,`T\*1G)O;3H@5VET;65R:G)`86]L+F-O;0T\*5&\Z(&)O871A;F-H;W)S M0`1H97!O<F-H+F-O;0T\*4W5B:F5C=#H@2%M,3@P("`@4T(M,3`P(\$EN9F@ M4F5Q=65S=&5D+B`@06YY(\$-L96=G(\$)!(\$EN=&5R97-T/PT\*365S<V%G92U) M1#H@/#DU,3(R,C\$T,S(T,%\Y-S(R.#<S,T!E;6]U=#`U+FUA:6PN86]L+F-O M;3X-"@T\*2&5L;&\@179E<GEO;F4L#0H-"DDG=F4@8F5E;B`B4VEG;F5D+4]N M(B!T;R!T:&ES(&=R;W5P(&90<B!A('=E96L@;W(@<V@;F]W(&%N9"!)=`!H M87,@<F%P:61L>0T\*8F5C;VUE(&UY(&9A=F]R:71E(2`@02!G<F5A="!G<F]U M<"!W:71H(&=R96%T(\$EN9F\A#0H-"DD@:&%V92!O;F4@<F5A;"!"02`M(&%N M(\$A1+3\$X,"!A;F0L(\$D@9V%T:&5R+"!A(")396UI+4)!(B!A;B!30BTQ,#`@ M+2!W:&EC:`T\*22=M(&Q0;VMI;F<@9F]R(&EN9F\O:&5L<"!W:71H+@T\*#0I( M42TQ.##`-"E1H92!(42TQ.##`@:&%S(&UA:F]R(&EN=&5R;6ET=&5N="!S96YS M:71I=FET>2`H:64@;&EK92!A;B!;/B]/9F8@<W=I=&-H\*2!A<PT\*:70G<R!T M=6YE9"!A8W)O<W,@=&AE('9A<FEO=7,@8F%N9`,@+2!A;&UO<W0@;&EK92!T M:&4@;6%I;B!T=6YI;F<@=F%R:6%B;&4-"F-A<&%C:710<BAS\*2!A<F4@:6YT M97)M:71T96YT;`D@<VAO<G1I;F<@;W(@87)E(&]P96YI;F<N(\$%N>2!S=6=G M97-T:6]N<R!O;@T\*=VAA="!T;R!D;R!T;R!F:7@@=&AI<S@(\$]T:&5R=VES M92!T:&4@<F%D:6\@<V5E;7,@:6X@97AC96QL96YT(&-O;F1I=&EO;@T\*=VET M:"!T:&4@8G5I;`0@:6X@=&EM97(@86YD(&5V97)Y=&AI;F<@+2!E=F5N('1H M92!M871C:&EN9R!S<&5A:V5R("8@;6%N=6%L#0IA<F4@:6X@97AC96QL96YT M(&-O;F1I=&EO;BX-"@T\*4T(M,3`P#0I4:&ES(&ES(&%L<V@:6X@97AC96QL M96YT(&-O;F1I=&EO;B!W:71H('1W;R!E>&-E<`1I;VYS.B`-"@T\*,2Y3979E M<F%L(&]F('1H92!R;W1A<GD@<W=I=&-H97,@87)E(&5X=')E;65L>2`B<W1I M9F8B+VAA<F0@=&\@='5R;B`M(&]N92!I<PT\*86QM;W-T(&EM<&]S<VEB;&4@ M+2!I;B!F86-T(\$D@9&]N)W0@='5R;B!I="`M('1H86YK(&AE879E;G,@:70@ M9&]E<VXG="!N965D#0IT;R!B92\$@(\$DG=F4@=')I960@5T0M-#`@=VET:"!L M:71T;&4@;`5C:RX@4W5G9V5S=&EO;G,`#0H-"C(N(\$]N('1R86YS;6ET('1H M92!A=61I;R!I<R!D:7-T;W)T960@+2!A;&UO<W0@8VQI<`!E9"`M('=I=&@@ M:70@<V]U;F1I;F<-`G=O<G-E('=I=&@@=&AE(&UI8R!G86EN('1U<FYE9"!D M;W=N("T@8F5T=&5R('=I=&@@=&AE(&UI:V4@9V%I;B!A;&P@=&AE('=A>0T\* M=7`N("!!;&P@=&AE('1U8F5S(&-H96-K(\$]++B!->2!N97AT(' -T97!S(&%R M92!V;VQT86=E("8@<F5S:7-T86YC92!C:&5C:W,-`G!E<B!T:&4@;6%N=6%L M+B`@268@;F]T:&EN9R!S:&]W<R!U<"!T:&5N(&9R97%U96YC>2!C:&5C:W,@

end

----- Cut Here -----

```
begin 644 RFC822.TXT
M4F5C96EV960Z(&9R;VT@9V%T93$N9'1T=7,N8V)M(&)Y(&-C,BYD='1U<RYC
M;VT@*%--5%!,24Y+(%8R+C$Q(%!R95)E;&5A<V4@-"D-"B`@("`[( $9R:2P@
M,C(@1&5C(#DU(#$T.C$U.C(X($-35`T*4F5T=7)N+5!A=&@Z(#QB;V%T86YC
M:;&]R<T!T:&5P;W)C:"YC;VT^#0I296-E:79E9#H@9G)0;2!U<F\N=&AE<&)R
M8V@N8V)M(&)Y(&=A=&4Q+F1T='5S+F-0;2`H-2YX+U--22U35E(T*0T*("`@
M(&ED($%! ,#@S.3D[($9R:2P@,C(@1&5C(#$Y.34@,30Z,34Z,34@+3`V,#`-
```

M"D5R<F]R<RU4;SH@;&ES=&]W;D!J86-K871A:RYT:&5P;W)C:"YC;VT-"E)E  
M8V5I=F5D.B!F<F]M('5R;R'H;&]C86QH;W-T+G1H97!O<F-H+F-O;2!;,3(W  
M+C`N,"XQ72D@8GD@=7)O+G1H97!O<F-H+F-O;2`H."XW+C,00558+3,N,2XQ  
M\*2!W:71H(%--5%`@:60@3D%!,3(X-3\$[((\$9R:2P@,C(@1&5C(#\$Y.34@,3,Z  
M-3(Z,C8@+3`V,#`@\*\$-35"D-"D1A=&4Z(\$9R:2P@,C(@1&5C(#\$Y.34@,3,Z  
M-3(Z,C8@+3`V,#`@\*\$-35"D-"DUE<W-A9V4M260Z(#Q0:6YE+E-53BXS+CDQ  
M+CDU,3(R,C\$Q,S@Q."XQ-C(Q-4\$M,3`P,#`P0&1I86U0;F0^#0I%<G)O<G,M  
M5&\Z(&QI<W10=VY`:F% C:V%T86LN=&AE<&]R8V@N8V]M#0I297!L>2U4;SH@  
M8F]A=&%N8VAO<G-`= &AE<&]R8V@N8V]M#0I/<FEG:6YA=&]R.B!B;V%T86YC  
M:&]R<T!T:&5P;W)C:"YC;VT-"E-E;F1E<CH@8F]A=&%N8VAO<G-`= &AE<&]R  
M8V@N8V]M#0I0<F5C961E;F-E.B!B=6QK#0I<F]M.B!B;V%T86YC:&]R<T!T  
M:&5P;W)C:"YC;VT-"E10.B!-=6QT:7!L92!R96-I<&EE;G1S(&]F(&QI<W0@  
M/&)0871A;F-H;W)S0'1H97!O<F-H+F-O;3X-"E-U8FIE8W0Z(\$)/051!3D-(  
M3U)3(&1I9V5S="`S.#0-"E@M3&ES='!R;V-E<W-O<BU697)S:6]N.B`V+C!C  
M("TM(\$QI<W10<F]C97-S;W(@8GD@06YA<W1A<VEO<R!+;W1S:6M0;F%S#0I8  
M+4-O;6UE;G0Z(%!L96%S92!S96YD(&QI<W0@<V5R=F5R(')E<75E<W1S('10  
M(&QI<W1P<F]C0'1H97!O<F-H+F-O;0T\*0V]N=&5N="U4>7!E.B!415A4+U!,  
J04E..R!C:&%R<V5T/553+4%30TE)#0I-:6UE+59E<G-I;VXZ(#\$N,`T\*

end

From boatanchors@theporch.com Fri Dec 22 14:37:43 1995  
From: berg stephen erik <z931086@corn.cso.niu.edu>  
Subject: Re: Military Radios  
Message-ID: <Pine.3.89.9512221402.A16396-0100000@corn.cso.niu.edu>

I backpacked extensively with the PRC-25 and PRC-77 a few years back, in a previous "police Action." Yes, they are a bit heavy, but not nearly as much as the 50 caliber Browning machine gun I carried later on. The handles on the radios tend to snag on the vines and other vegetation. I would think that a modern hand held radio would be a much better deal now. I did not have that choice at the time!

73 & Happy Holidays!

Steve WA9JML

z931086@corn.cso.niu.edu

From boatanchors@theporch.com Fri Dec 22 14:37:43 1995  
From: "Terry O'Laughlin, RM:7135, #:6-6667" <OLAUGHLIN@vilas.uwex.edu>  
Subject: More 1660kHz info  
Message-ID: <MAILQUEUE-101.951222131708.576@vilas.uwex.edu>

----- Forwarded Message Follows -----

Date sent: Fri, 22 Dec 1995 07:45:09 -0600  
From: AIRWAVES MEDIA <articles@airwaves.com>

Subject: More on 1660 Khz activity  
From: Ray Dennis <cbmbest@ix.netcom.com>  
Organization: Netcom

Today, I spoke with John L. Sullivan, an official with WJDM in Elizabeth, NJ and had a very interesting conversation.

He said that they had gotten FCC approval just before they withdrew the allocation plan. They put 1660 on the air a couple weeks ago.

It seems their situation is as follows: WJDM is a daytimer on 1530 Khz with no chance for any kind of nighttime operation. To complicate the problem, they are located in a swampy area of New Jersey where several New York City stations have located their transmitters. Two of the stations create an intermod or diplexing situation where their signals combine and create interference on 1530 (such as 720 plus 810). WJDM is the only broadcast outlet in a market of 100,000 people. The FCC considered it a hardship case.

In order to stay on the air WJDM had left their previous format and sold the whole day to an Hispanic Gospel outfit. They simulcast this on 1660 in the daytime. In order to meet minimum FCC operating hours for a full-time station, 1660 must stay on the air until 10:00pm local time. They are running oldies from sundown until 10:00pm. They have received reports from as far away as Oregon. I have been receiving their 1,000 watt nighttime signal in Des Moines Iowa loud and clear.

Ray Dennis  
Des Moines, IA

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995  
From: Ray Dennis <cbmbest@ix.netcom.com>  
Subject: More on 1660 Khz activity  
Message-ID: <4bd3rd\$378@ixnews8.ix.netcom.com>

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Ray Dennis  
Des Moines, IA

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995  
From: Jacqueline Herman <jherman@sierra.net>  
Subject: Re: More on 1660 Khz activity  
Message-ID: <Pine.SUN.3.91.951221193949.10426B-1000000@diamond>

You folks might want to continue this QSO over on rec.radio.broadcasting or even rec.radio.shortwave (hint hint!).

Jeff NH6IL\7

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995  
From: jmillier@teleteam.com (Jay H. Miller)  
Subject: More Re: Vintage SSB Tonight  
Message-ID: <v01510101ad00372d7484@[205.198.110.14]>

Jack-

3891 kc is a bit too high in frequency for me with my shunt-fed vertical but I will be there listening with much the same equipment.

The Collins guys meet each Tuesday and Thursday nights at 3805 around 7:00 CST. All are welcome there too!

\*\*\*\*\*  
Jay Miller, KK5IM  
jmillier@teleteam.com  
\*\*\*\*\*

From boatanchors@theporch.com Fri Dec 22 14:37:43 1995  
From: merrigan@ee.ualberta.ca (Shaun Merrigan)  
Subject: Mu-Metal Discussion  
Message-ID: <m0tTByz-000CuXC@knuth.mtsu.edu>

Hello to all!

I pulled the following discussion of Mu-metal (Did not the SP600 advertise as having Mu-Metal sheilding??) off engr.sci.metallurgy. It is a very interesting thread on Mu-metal.

Note: in order to save bandwidth, I have clipped out the headers.

>Looking for information on the EMI/RF Shielding commonly known as MU Metal.

As with all thing Mu-metal is mu-metal is ???

There are a number of alloys which might be appropriate for shielding which some people tend to misname by calling them all Mu-metal. so here are a couple of suggestions ...

Mu-metal is a trade name, According to "Woldmans's Engineering Alloys" it is one of a number of allys with composition of

Mo 4, Cu 5, Fe 14, Ni 77

The supplier of the alloy is listed as Telcon Metals, Crawley, Sussex England. Sorry no street address or telephone number.

Other materials which are similar in composition are the HyMu alloys from Carpenter Technology COrp.

HyMu 80 has a composition of Ni 80, Mo 4.20, Mn 0.50, Si 0.35, Fe bal. and is also used for shielding applications. This is one of a

series of alloys made by CarTech and should be readily available.

CarTech has a number of sales offices. They are based in Reading Pa.  
Sorry don't have a telephone number.

Hope this helps

James A. Forster a723601@pan.mc.ti.com

>From the ASM Metals Handbook, 9th ed. Vol. 3 pg. 606:  
Mumetal is a magnetically soft nickel-iron alloy with composition  
77Ni-5Cu-2.75Cr (wt%, bal Fe). There are many other magnetically soft  
alloys out there that people may refer to as "mu metal."

MUMETAL is a trade name for Telcon Metals of Crawley. There are several  
alloys in the series including  
Mumetal, Mumetal 40, Super Mumetal 50, Super Mumetal 100.

They are all Ni alloys containing 14% Fe, 4-5% Cu, 4% Mo (except for Super  
Mumetal 100 which contains 5% Co instead of Cu). The permeability of the  
alloys is controlled by the heat/work treatment.

Barry Lamb

I was under the impression that mu (greek letter) metal was an alloy of  
lanthanides (predominately). Its biggest (only) application dealt with  
magnetic permeability issues. Mind you, your above alloy is only 23%  
metal, so maybe the other 77% is lanthanides.

--

Gordon Haverland email:  
ghaverla@freenet.edmonton.ab.ca

Oops. You'd think that I would have learned to read by now. This alloy  
by Telcon Metals is Nickel based, so the other 77% is Nickel.

Is there a lanthanide containing alloy used for magnetic properties, or  
is my mind imagining things?

--

Gordon Haverland email:  
ghaverla@freenet.edmonton.ab.ca

No... Barry Lamb is correct... Mu Metal are Ni based alloys...  
no lanthanides... the 77% is Ni. This is an old technology...  
I have a deflection shield for a very small cathode ray tube

that dates back to WWII. It was made by the James Millen Co. of Malden, MA. Interesting thing about Mu Metal... all fabrication needs to be done before the anneal... no work hardening allowed.

There is/was a modern replacement for shielding called MetGlass. An amorphous Fe,Si,P.? alloy which could be obtained as foil or woven cloth... claims were that it worked better than Mu Metal.

There are a number of lanthanide alloys or compounds used as permanent magnets -- very different from mu-metal, which is a "soft" or high permeability magnetic material. The principal compositions are SmCo5, Sm2Co17+added Fe, Cu, Ti, etc.; and Nd2Fe14B. Sm=samarium; Nd=neodymium, both are lanthanides.

C. D. Graham  
Dept Materials Science  
Univ of Pennsylvania

I'm the guy who is fuzzy on this lanthanide/mu metal stuff. Samarium and Neodymium don't seem right on this to me. Dysprosium or Gadolinium seem to be closer to this recollection of mine, but I have no references here on lanthanide alloys to look through. Oh well.

--

Gordon Haverland email:  
ghaverla@freenet.edmonton.ab.ca

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Shaun P. Merrigan  
3rd Year EE University of Alberta  
merrigan@nyquist.ee.ualberta.ca (Shaun Merrigan)  
-----

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995  
From: k3drj@radix.net (Jim Harding)  
Subject: Re: Need plugs  
Message-ID: <199512220119.UAA10968@news1.radix.net>

>



> Anyone have nine-pin plug/socket (male and female) for constructing  
> the power cable, I should appreciate hearing from you. It is similar  
> to a tube octal socket/base, complete with keyway, except it has NINE  
> #%&\*@\$(^ pins.  
>  
> 73, Al N5AIT  
> modsteph@acs.eku.edu

Hi Al, drop me an e-mail with your address and you'll have what you need!!!  
I have a nine pin male and a nine pin female connector. Both are set up to  
be at the ends of cables. Don't know if this is EXACTLY what you need, but  
they are what you described.

73 - Jim K3DRJ  
k3drj@radix.net

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995  
From: "Barry L. Ornitz" <u856010@eastman.com>  
Subject: Nobatrons  
Message-ID: <Pine.ULT.3.91.951221185956.12849C-100000@dua150.kpt.emn.com>

I have a schematic for one version of a Sorensen Q-Nobatron supply. I  
doubt it is your unit but there may be similarities that will help you  
troubleshoot it.

Many of these supplies were a hybrid switching/linear supply. The get  
good regulation, a linear supply is needed but this would cause excessive  
power dissipation at low output voltages. Thus a switching supply was  
used to pre-regulate the input voltage to the linear regulator. This  
voltage was typically a few volts above the desired output voltage. With  
this arrangement, very large current swings on the output can cause  
instability in the regulator circuit. Fairly low switching frequencies  
were used in these early supplies which makes the situation worse.

One possible suggestion is to hang some LARGE computer grade electrolytics  
across the output, perhaps a few hundred thousand microfarads. A simpler,  
and perhaps cheaper, suggestion would be to use two small 12 volt  
motorcycle or lawnmower batteries in series across the output. Our local  
discount store carries these small lead-acid batteries for a few dollars  
each. The batteries would supply the current peaks and recharge during  
the current valleys. Running in constant voltage float service, they  
should only require the periodic addition of distilled water. Relatively  
small amp-hour batteries should be suitable as they are not called on to  
supply continuous power. Their effective capacitance will be many FARADS  
in this application. With the batteries fully charged, set the power  
supply output voltage at a voltage sufficient to supply a trickle charge

to the batteries (between 0.01 and 0.1 the amp-hour rate, i.e. for a 4 amp-hr battery, set the voltage to produce approximately 100 mA charging current on the batteries with no additional load connected).

The brown object is likely the energy storage choke for the switching supply, but I may be mistaken. Sorensen made a large number of different supplies. I am going by the one I have.

Surplus wet cell nickel-cadmium batteries or Edison cells would be even better. I think the eloquent Bob Keys is the expert on Edison cells.

73, Barry WA4VZQ ornitz@eastman.com

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995  
From: Peter Ferrand <pferrand@scoot.netis.com>  
Subject: Re: Nobatrons  
Message-ID: <199512221122.GAA09596@scoot.netis.com>

Ah, Barry...thanks and you are spot on. I, like many others here, have long appreciated your insight into various matters and I am very grateful.

The Q Nobatron in question is a QRC20-30A. I suspect they were all similar if made in the same epoch.

The unit is indeed a hybrid design, although I would hesitate to say switcher since I doubt it resembles what most folks call switchers, now, what 30 or more years later. And as a 20 volt variable supply, the very large power power xfrm puts out 31 vac, just as you indicate.

I did not, of course, realize the oscillator part when I picked the thing up but it seems totally quiet on the hf bands but tears up lf and my TV set quite impressively. Since I'll be using this on hf I am going ahead for the moment.

I did consider the battery alternative with another supply that is unregulated. However, since this is apt to be used infrequently, and I need exactly 26 volts, and I'd have to provide a load disconnect to prevent drawing down the batteries, it seems a lot of trouble and maintenance.

The Sorenson regulates perfectly - I'm using maybe half it's current capacity and even under voice peak load of an AM rig AND faking the programming resistors to get 26 volts out of a 20 volt supply, I measure less than .1 volt fluctuation, and real low ripple.

But it talks back to me and causes feedback thru the mike/compressor. Yeah a cardioid mike helps but it's real annoying. I just can't find what it is that's acting as a voice coil or piezo element, even with a hollow tube in my ear. When the current draw changes something vibrates into the air - I'm not talking about the oscillator whine, which isn't too bad and will drop more as I get older :-)

I would appreciate a copy of the manual/schematic and I'll pay any costs or copy it myself or whatever you'd like. I think you're probably right about the brown object being an energy storage choke, altho I'm not real familiar with this technology. I doubt the schematic will help me find the noise, but if I ever want to fix it, well, you can't fix these things with a signal tracer and a dip meter!

Here's my full address while I'm thinking of it:

Pete Ferrand, WB2QLL  
65 Atherton Avenue  
Nashua, NH 03060-1904

73,  
-P

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995  
From: "Craig Anderson - Ext. 1364" <CAnderso@smtp.stp.tec.mn.us>  
Subject: R390A manual needed  
Message-ID: <30DA1E3F@smtp.stp.tec.mn.us>

Does anyone have an original R390A maintenance manual(not a copy.) I Would really like to purchase the 1961 edition which is probably the most commonly available one.

Craig, K0AZB  
canderso@smtp.stp.tec.mn.us

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995  
From: TOM.A.ADAMS@mail.admin.wisc.edu  
Subject: Re. Activities on 1660 KC  
Message-ID: <FCLL0018.FCLL0049@mail.admin.wisc.edu>

to: boatanchors@theporch.com

Re. those Gawdawful data signals in the 1700 - 1800 KHz range;

Damned if I know for certain what they are, but the licensee data base software that Monitoring Times / Grove Enterprises sold a couple years back shows a whole sh\*tload of experimental licenses, and licenses for mobile stations in the entire range between 1650 and 2000 KHz. That includes TONS of 'em that are INSIDE of the 160 metre ham band. They're licensed to big time, heavy hitter corporations.

On 160, the boys have sorta tentatively identified the ones inside the band as "fishing beacons"; transmitters attached to unmanned drift nets floating in the Gulf of Mexico off the Louisiana and Texas coasts. Supposedly, the FSK data bursts they transmit are identification numbers. I haven't tried to read any of 'em on the digital demux box, but I think I will, just to see what they're sending.

The procedure is supposed to be that the nets are visited by servicing boats periodically. Once a given transmitter is identified by it's code number, conventional D/F techniques are used to locate it.

I'd just LOVE to know how much power these things are running, and what the kind of antennas they're using; if they are indeed in the Gulf, they have to be running some pretty heavy juice. At night, these gizmos effectively blow major holes in the ham band as far north as the Canadian border!

Speaking of this frequency range: once again, we're getting evidence that the winter has indeed arrived. As the ground gets frozen in the higher latitudes, we can once more hear the 5th, 7th, and 9th harmonics of long wave aviation beacons (NDBs, or "nondirectional beacons") as their cheerful A2 signals reek havoc as high as 2.5 MHz! I don't know why this happens, but for the last 2 winters I've been hearing these damned things from as far away as 750 miles.

73's,

Tom, K9TA

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995

From: Peter Ferrand <pferrand@scoot.netis.com>

Subject: Re: RE>Sorenson Nobatron

Message-ID: <199512212227.RAA28732@scoot.netis.com>

AH! NoBattery.....well it sounds possible I guess. Thanks.

Nope, not interested in yours, no matter where it is in relation to me. I need 26 volts well regulated, and this one does that, but thru a conventional remote sense circuit with the 30 year

old practice of using as many parts as possible.

Now if I could only get it to SHUT UP!

73,

-Pete

WB2QLL

pferrand@scoot.netis.com

..And Christmas and New Years greetings to all and sundry. I hope Santa brings me a sundry this year - it would obviously make my life complete.

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995

From: Jacqueline Herman <jherman@sierra.net>

Subject: SKN: Whatcha gonna use?

Message-ID: <Pine.SUN.3.91.951222113818.16215A-100000@diamond>

Hi Gang from an overcast & cold day near Lake Tahoe (brrrr - I miss Hawaii!),

With Straight Key Night only about a week or so away, how about telling the group what rig and which key you're going to use?

The xmtr \*and\* key will both be homebrew. I'll be rockbound on 3579 and 7057 kc. But if I can get the Galaxy GT-550 fired up (I get it next weekend for the price of a dinner) then I'll be up and running on 80 and 40 (no 160 on the Galaxy - phooey). But again, note that the key \*is\* homemade (from a hacksaw blade!).

73 from Nevada (yuck),

Jeff NH6IL\7 (posting from my mother's email account, thus the name).

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995

From: TOM.A.ADAMS@mail.admin.wisc.edu

Subject: Spy Ship Radio Equipment

Message-ID: <FCLM2101.FCLM2111@mail.admin.wisc.edu>

to: boatanchors@theporch.com

Hello Michael.

Not sure what was used on USS Pueblo for ELINT purposes, but in his book

the Captain, Cmdr. Lloyd Bucher, made a couple of references to the communications gear used to keep contact with thier base in Japan. The rig in that spot was the Collins URC-32, running RTTY.

Mr. T.

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995  
From: Jacqueline Herman <jherman@sierra.net>  
Subject: Re: Upper case,Viking Invaders,HRO coils, SKN  
Message-ID: <Pine.SUN.3.91.951221143650.26821B-100000@diamond>

On Thu, 21 Dec 1995, MIKE SANDERS wrote:

> ZUT (always upper case)  
> 0805Z NOSIGS  
> 0810Z NOSIGS  
> 0815Z NOSIGS

0815Z BEGIN SILENT PERIOD

Jeff NH6IL\7 (ex Coastie CW op at NMO)

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995  
From: "Steve Hose" <NUHOSE@befac.indstate.edu>  
Subject: RE: UPS Rates  
Message-ID: <6B01C0F5096@befac.indstate.edu>


> > Things must be different around the country. UPS just leaves  
packages > >near the side door.  
> >  
> >73 de Dennis, KG9DO doonan@cordmc.dnet.etn.com  
>  
> Actually, they usually do that here too. I wonder if they would do it if  
> you had a parcel that was heavily insured? Maybe their increased costs for  
> residential delivery are due to paying off "theft from porch" claims?  
>  
> Stan W7NI@teleport.com

A real horror story about UPS...As a Class III Firearms Dealer (machineguns), I had ordered two (2) M-16 machineguns for a police department. I was to leave on a trip to the Netherlands so I

checked the delivery date...it was to be well after my  
return. Not wanting to take any chances I informed UPS not to make  
any deliveries during my absence. Yes, when I returned I found two  
boxes at the front door (they had only been there three days!).  
73,

Steve KD1DT

ARRL LM  
AMSAT LM-357  
NRA LM  
RSARS  
RSGB

NUHOSE@befac.indstate.edu            Terre Haute, IN  
-----oo00-( )-00oo-----  
and  
Jack the Cat

From boatanchors@theporch.com Fri Dec 22 13:58:02 1995  
From: "Jack Giehl" <JACKG@s1.xetron.com>  
Subject: Vintage SSB Tonight  
Message-ID: <50545F823D0@s1.xetron.com>

Dear BA Enthusiasts,

I will be on the air 10:00 PM Eastern tonight on 3891 KC LSB with  
the "Gold Dust Twins", the Collins KWS-1 and 75A-4 combination  
made in the mid 50's. The 75 meter band conditions have been  
unstable lately, but the last few nights have been good.

Any vintage SSB station or enthusiast is welcome to join in.  
Get that old Hallicrafter, Heath, Drake, etc. fired and take the  
chill out of the air with the warm glow of vacuum tubes.

PS. Don't try to use AM to check in. There are some lunatics  
operating on 3894.5 KC, and AM operation on 3891 KC is sure to  
get them stirred up.

Jack, WB8BFS

73,

=====

Jack, WB8BFS

jackg@xetron.com      Loveland, Ohio (near Cincinnati)

=====

From boatanchors@theporch.com   Fri Dec 22 13:58:02 1995

From: stever@cybercomm.net (Stephan Rashkin)

Subject: WTB...Johnson VF-122

Message-ID: <199512220508.AAA17087@raven.cybercomm.net>

Still looking for a Johnson VF-122 in good shape and no mods to use with my Adventurer..Please let me know even if you have one for sale even if in fair shape..

Please E-mail:

stever@raven.cybercom.com

Thanks,

Steve, WA2NHZ

From boatanchors@theporch.com   Fri Dec 22 13:58:02 1995

From: pmills@cyberhouse.com (Phil Mills)

Subject: WTB: 160 meter xmtr or recommendations

Message-ID: <199512220248.UAA29754@ns.cyberhouse.com>

Ladies and Gentlemen,

I find I wish to take part in the activities on 160 meters....after looking at what I had on hand, I find that I have 3 fine BA receivers capable of covering this band but nothing that will transmit on it. Does anyone have a 160 meter capable xmtr, preferably vfo controlled, with enough output (50 watts?) to drive an amplifier that they wish to sell? I would also like to hear from anyone who has recommendations for what I should get.

thanks,

Phil

Phil Mills, AB5TH

pmills@cyberhouse.com

713-482-2763



From boatanchors@theporch.com Fri Dec 22 13:58:02 1995  
From: jml@spider.lloyd.com (Jim Lockwood)  
Subject: Re: WTB: 160 meter xmtr or recommendations  
Message-ID: <m0tT8VW-000TrcC@spider.lloyd.com>

> I would also like  
>to hear from anyone who has recommendations for what I should get.  
>

During this time of year, 160 is so quiet, that power isn't needed for reliable communication.

A DX-100, with its 100 or so Watts out is more than adequate for the band. (Anecdotal proof: I have a Thursday night sked with a fellow in San Diego, about 450 miles distant. I consistently get from him 25/9 reports with my DX-100.) So my biased recommendation is for the venerable DX-100 transmitter.

Conversely, in the summer months, the band noise is so high, 160 just isn't much fun to operate, no matter what the power level or transmitter.

73,

Jim - km6nk